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MANAGEMENT REVIEW

JUNE, 1948

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A Challenge to American Management

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The Controller's Role in Union Negotiations

The Employee Credit Union

Systematic Recruitment of Supervisors

Dismissal Pay Practices

Do You Know Your Full Plant Capacity?

Cutting Damage in Transit

There's Gold in Them Thar Kids

Helping Employees with Their Financial Problems

Does Testing Reveal the Accident-Prone?

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**AMERICAN MANAGEMENT ASSOCIATION
330 WEST 42nd STREET • NEW YORK 18, N. Y.**

James O. Rice, *Editor*; M. J. Doohar, *Managing Editor*; Alice Smith, *Research Editor*; Vivienne Marquis, *Associate Editor*; Evelyn Stenson, *Assistant Editor*.

THE MANAGEMENT REVIEW is published monthly by the American Management Association at 330 West 42nd Street, New York 18, N. Y., at fifty cents per copy or five dollars per year. Vol. XXXVII, No. 6, June, 1948. Entered as second-class matter March 26, 1925, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Changes of address should be forwarded to the publishers *one month in advance*, and postal unit numbers should be included in all addresses.

The object of the publications of the American Management Association is to place before the members ideas which it is hoped may prove interesting and informative, but the Association does not stand sponsor for views expressed by authors in articles issued in or as its publications.

the MANAGEMENT REVIEW

Volume XXXVII

No. 6

JUNE, 1948

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Printed in U. S. A.

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GENERAL MANAGEMENT...

A Challenge to American Management

WHAT is today's challenge to every management in America? To such a question, many a man might stoutly answer: Challenge? Haven't we *met* the challenges? Haven't we built the industrial machine that won a war with so much to spare that today it is the hope of the world? Haven't we attained the highest living standards in history? Don't Americans—7 per cent of the world's population—own 70 per cent of the world's automobiles, 34 per cent of the railroads, 50 per cent of the telephones, and so forth? Aren't we unexcelled in production, transportation, engineering, distribution, finance, and all the other specialties of management?

Yes, we are tops, *technologically*. We have given tremendous demonstrations of economic strength. And yet, when we discuss the very virtues of our system, we feel we have to defend it. Why? The fact is we *are* on the defensive. The fact is, we are operating in an atmosphere that is partially hostile and largely indifferent to management's aims and views. Consider the public opinion polls. Perhaps they aren't perfect cat's whiskers. They can err in judging elections when a small percentage may tell the tale. But they can evaluate clean-cut trends with satisfactory accuracy. And this is what the Opinion Research Corporation tells us:

Twenty-four per cent of the American people as a whole lean definitely toward some drastic, fundamental change in our social, political, and economic system. This does not necessarily mean red communism as such.

But it includes communism and a number of other tendencies which would have the same final effect on economic enterprise and political freedom.

Now that, or anything like it, is an uncomfortably large number of people—some 35 million, in fact—to have on the wrong side of the ideological fence. Moreover, an even higher percentage of manual workers leans leftward than does the general public. The Psychological Corporation put this question to industrial employees: "If all the manufacturing companies were run entirely by the government, would you get more for your money than under the present system?" Forty-three per cent said either "more" or "as much."

Other polls, cross-checking these, all point to the same basic bump of dissatisfaction in the profile of public opinion. From this and its implications no industry—steel, food, railroads, or any other—is exempt.

Is *that* a challenge?

Now that we perceive the magnitude of the challenge that confronts us, what steps must we take to meet it? We begin by agreeing that there is a specialty called human relations which, plainly, we haven't mastered. Great though our proficiency in other areas of administration, we haven't gotten very far with this one. What then? We take four steps: Having defined the problem, we (1) determine its causes; (2) find out what needs to be done; (3) learn how to do it; (4) do it.

Our search for causes is, in many ways, the most important. If here we go astray, nothing but futility can attend our execution of the remaining

steps. Yet it is at this point that we are most likely to wander.

How, for example, do we assess the flood of anti-management statements which pelt the public ear incessantly from the left? In the communist press, members of management are described as "monopolists," "war-mongers," "profiteers," and worse. True, the communist press has a tiny circulation, but some of its strongest "lines" are echoed by certain labor publications and "liberal" organs and by political personalities whose voices reach millions. Of course, there are many informed and progressive labor editors and leaders who understand and teach labor's basic stake in our economic system. And all honor to them! But there are many others who systematically feed the fires of antagonism.

As to these last, we may as well be realistic and admit that labor strife has always flourished—and still flourishes—in the soil of management indifference to the simplest principles of good personnel administration. Similarly, much of labor's militancy today has its roots in management's early resistance to unionization.

At any rate, we find one cause of our problem in the attacks levelled against management by a small number of outright radicals and a larger number of conscious or unconscious cats-paws. But is that the only cause? Let us dig a little deeper.

This brings us to another significant set of Opinion Research findings. Boiled down, they come to this: Two-thirds of the public generally believes that industrial profits average about 20 per cent on sales. Some guesses run as high as 60 per cent. Industrial employees believe they are 25 per cent. Management knows industrial profits are averaging about 5.1 per cent of sales after taxes. The worker doesn't know that. Why should he? Probed

at another point, workers express belief that management gets 75 cents of the company dollar available for wages and salaries and that labor gets only 25 cents. Management knows 87 cents goes to workers and only 13 cents to owners and managers. But why should the worker know *that*? For, looking still further, we find that *only one worker in five is aware of having received any information whatever from his employer about profits and wages.*

Now we are at the root of the problem. *We are face to face with the task of improving inadequate human communications.*

This is closely intertwined with the real root cause of most strife within business organizations, among groups in society, and, for that matter, among nations. The complexity of modern industrial life tends to widen the chasm between cause and effect—effort and reward. At every level, the individual is uncertain of his own place in the enterprise and even less certain his contribution is recognized. And thus is bred a deep-seated sense of loneliness, insecurity, frustration, and often neurosis in the individual. In the workplace, this frequently means uncooperative and radical worker attitudes. In the community, it results in a general distrust of, or indifference to, industrial institutions.

We have identified the problem and its causes—namely, lack of information and misinformation due to the inadequate communication of essential facts. We are ready to proceed to the next step but not without certain important stipulations.

First, can we assume the solution lies simply in giving people what we call "the facts"? Are all the facts in management's favor? Is the American economic system flawless? Is management blameless? *No!* And if we want to be believed, we must be mod-

erate in our claims. The American system is the best in the world, despite its faults. But the credit may be due more to the inherent merit of the system than to management's virtues. Men didn't found businesses and build railroads primarily to create jobs and improve living standards. Profits were the basic motive. Every worthy business enterprise, however, has made jobs and bettered living standards, and the profit system has made this possible.

At the same time we must face up to a basic weakness in the system: depression accompanied by unemployment. We *must* find the way to greater economic stability. This begins with the realization that to insure the profitable continuance of a business we must operate it with the public interest in mind.

We must correct basic misconceptions as to profits and wages. We must represent ourselves as *people* to the people with whom we work. We are neither noblemen nor frock-coated fat cats. We are just human beings, with worries and problems like other human beings. We make mistakes, but our intentions toward other people are good. And here is the second stipulation: Our good intentions must be sincere and real. No amount of communications will whitewash management insincerity or fill a moral vacuum. But people will honor the intentions of a management that is trying to live by a high standard—even though it frequently fails.

Of the many ways in which management can communicate with employees and the public, face-to-face contact will always be the most effective. Not long ago, a Philadelphia employer faced a crisis in wage negotiations. For the first time in his life, he called all his employees together

with the union leaders. He told them everything he knew about the business and its problems. As a result, the employees and union leaders made wholly new proposals. Within 24 hours, the crisis was past.

Why must management wait for a crisis to utilize this principle?

Management needs the technicians of human relations to help get the job done. It must give them full functional recognition at top levels and a voice in policy. But top management must also actively support improved communications until every member of the team, up and down the line, is asking questions and getting and giving answers.

And here is another point. Management spends some \$30 million a year on employee publications. It has been a sort of unwritten law that controversial questions—labor relations especially—are not to be discussed in the company prints. The Goodyear Tire and Rubber Company questioned this rule. It started a front-page column, frankly and factually discussing the pros and cons of in-plant labor problems. The results, in terms of better understanding, have been excellent.

As a matter of fact, it is hard for anyone, in or out of management, to get and hold public attention for his views. The competition for the audience is keen, and the public memory is short. Even great statesmen, in the center of the stage, manage to say only a few things that people remember in a lifetime of talking. Perhaps management would do better to hit harder and make a few mistakes, quickly forgotten, than lose the whole game by default.

From an address by AUSTIN S. IGLEHEART before the Traffic Club of New York (*The Public Relations Journal*, April, 1948, p. 3:9).

Build the Stockpile Now for National Security

AMERICA's defense stockpile is in bad shape. It is the poor relation of our national defense—poor in funds and poor in the critical materials this country would depend on in time of war.

With more than a third of the five-year stockpiling period (1946-1951) already past, only a handful of the 67 critical materials have been purchased and stored away at the scheduled rate. The vast majority of the strategic metals, chemicals, and other substances on the stockpile list are woefully short.

In a number of important materials, observers agree, United States stocks held privately and by the government are now at a lower level than in 1941.

In view of the fact that the value of domestic metal produced in the United States last year was a record \$3 billion—up 65 per cent from 1946—this looks like a paradox.

The facts are, however, that world production of some strategic materials is still recovering from the disruption of war. In addition, American industry is currently consuming practically every kind of material at record rates.

Result: The government, hewing to the policy set by Congress, has refrained from competing with industry for scarce materials, and has therefore had little opportunity to purchase for the stockpile.

This is not the only reason defense stockpiles are so low. Though Congress decided a stockpile was necessary and that the nation had better have one large enough to last through a full-scale war by 1951, appropriations for two of the five years have been far too small to carry out this policy. And there is every likelihood that the new appropria-

tion will be like the first and second—certainly not much bigger.

The Stockpiling Act of 1946 (Public Law 520, 79th Congress) set a ceiling of \$360 million a year for five years with which to buy materials for the stockpile. That adds up to \$1.8 billion.

Since then, prices of most items have risen sharply. The Munitions Board, which administers the Act, estimates that today the same stockpile will cost \$3.1 billion—or \$550 million annually for five years. (The Board has inherited about \$400 million worth of critical materials from other government agencies.)

Ignoring these statistics and its own earlier conclusions, Congress has granted the following stockpile funds which are hardly more than pittance in relation to the size of the job:

Fiscal 1947	\$100,000,000
Fiscal 1948	\$175,000,000
Fiscal 1949 (requested).	\$285,000,000*

* Likely to be cut substantially.

Nor does the story end there. Congress also limited contracts for future deliveries to one year. Yet mines take two to five years to get into production. And because metals make up 90 per cent of the stockpile, this policy has consistently hampered the Munitions Board in its administration of the Stockpiling Act.

If America is to have an adequate defense stockpile, seven major policy changes must be made this year:

1. *Congress must loosen the purse-strings.* Appropriations in the order of \$700 million to \$1 billion annually for 1949, 1950, and 1951 are required, if the Munitions Board "minimum stockpile" is to be purchased by the 1951 deadline.

2. *The stockpile objective must be substantially raised.* The present size of the stockpile—around \$3 billion—is acknowledged to meet only the bare war essentials. Competent authorities recommend raising the stockpile goal to at least \$5 billion, perhaps higher.

3. *A long-range program is required.* A 20-year stockpiling program, as a long-range hedge against depletion of national resources, makes hard sense. Despite an over-all cost of \$10 billion or more, the expense of such an investment would be cheap when viewed from the standpoint of future national security.

4. *Congress must give the Munitions Board enough authority to get the job done right.* First, stockpilers should be permitted to sign contracts for delivery of required materials three to five years from now. By furnishing an assured market at a fair price, the Munitions Board would be able to stimulate the extra production at home and abroad that would bring out the scarce items it so badly needs. Second, some competition with industry for stockpile materials should be allowed. Since the war ended in 1945, industry has been given a free hand—and has drained off large stocks of materials held by the Office of Metals Reserve—to help speed up the reconversion from war to peace. That policy has now served out its usefulness. It is time the defense stockpile got a slice of the loaf, not just the extra crumbs.

5. *Tax incentives must be offered to bring out venture capital.* At the present time, the mining industry is hamstrung by unfair tax laws in developing new resources and exploring possibilities. Only about one new mine in 10 proves successful. Investors who advanced the money to open the nine "duds" are,

however, not permitted to recoup their losses—if this can be done—through profits from the tenth. Result: Venture mining capital is difficult to find, and the rate of discoveries and developments is low. Congress should amend these tax laws to remove this burden from the mining industry.

6. *Research to utilize U. S. marginal resources must be stimulated.* If techniques can be developed to make economic use of America's marginal deposits, her total national resources will be vastly increased. Research to develop methods to extract metals from low-grade ores on a paying basis will become more important as the mining industry exhausts the richer lodes. Such research cannot be stepped up too soon, or on too broad a basis.

7. *There is too much secrecy about defense stockpiling.* At present, the public knows nothing about the program, beyond the over-all sum expended and the items listed for purchase. The Munitions Board defends this policy as necessary to national security, and to prevent speculation.

Less secrecy about stockpiling, however, would serve two good purposes. To begin with, the taxpayer has the right to know how so important a security measure is being carried out. If it were widely known today that the defense stockpile is as far behind schedule as it actually is, there would be plenty of acid comment and Congress would take action.

Furthermore, the Munitions Board would be put to the test to show that its stewardship had been as anxious and alert as it ought to be.

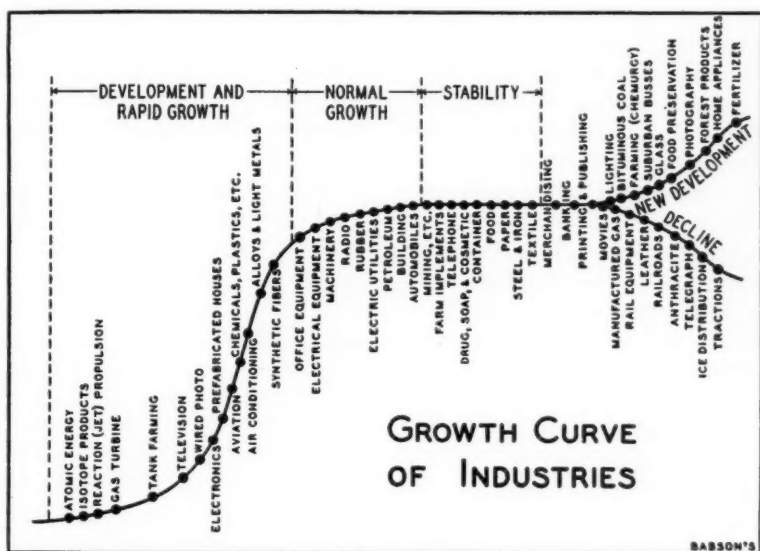
America cannot afford to fail. She must take stock of her stockpile.

Factory Management and Maintenance, April, 1948, p. 50:6.

A Problem in Any Business

"AN historical study of the growth trend of American enterprise shows a fairly well-developed pattern. A business is started. It evolves to a position of leadership through the ability, energy, and imagination of its management. Success finally is attained. But success may bring self-satisfaction. In that event the urge for competitive survival, the greatest of all incentives, begins to decline. The spirit of venture is dulled by the inertia of the mind against change. . . . The perpetuation of an unusual success or the maintenance of an unusually high standard of leadership in any area of enterprise is often more difficult than the attainment of that success or leadership in the first place. It is a most consequential problem as effecting the long-term interests of any business"—Alfred P. Sloan, Jr., in the preface of General Motor's annual report.

—Headlines (Harry W. Alexander Organization)



—Chart by courtesy of Business Statistical Organization

• ONE MORE WAR-BORN SHORTAGE officially ended last week—the shortage in the number of U. S. business firms. The Department of Commerce, which keeps tabs on the business population, estimates that there was a deficit of 700,000 firms at the end of 1943 (the wartime low point). Ordinarily, the number of firms is closely tied to the general level of business activity. On this basis, the experts figure that there should have been about 3.5 million going concerns in 1943; actually, there were only 2.8 million.

Now this deficit has been wiped out. Recent Commerce figures show that the business population has grown by more than a million since the wartime low. At the end of 1947, the total stood at 3,871,400. That, the experts say, is just where it should be.

—Business Week 3/6/48

An Appraisal of Our Natural Resources

INDUSTRY in the United States has a ravenous appetite for our natural resources. Much of the effect of technological progress has been, and no doubt will continue to be, to place in our possession more powerful means for wresting from nature's storehouse the materials that we desire.

It takes a wide retinue of resources, of course, to support our complex economy from stem to stern. Yet the degree of concentration on a few resources even at this advanced period of our development is surprising. Only eight of the 91 varieties of minerals reported by the Bureau of Mines in 1939—petroleum, coal, natural gas, cement, iron ore, stone, sand and gravel, and copper—accounted for 84 per cent of the total value of mineral products and for 93 per cent of the total weight. The mineral fuels represent two-thirds of the value of all crude minerals produced. The value of crude petroleum alone was double that of all metallic ores.

A glance at the tonnage of raw materials produced is illuminating in regard to the quantity handled to meet our requirements. The American economy produced a per capita total of 12.6 tons of raw materials from extractive sources in 1939, excluding such items as earth moved in grading or excavation and water consumed or otherwise used. Mineral materials alone, including ore rather than refined metals, accounted for 9.7 tons per capita. Of this weight, 3.5 tons were coal, 1.5 tons petroleum, 1.5 tons sand and gravel, and 1.1 tons stone. Per capita output of the two leading metallic raw materials was 0.5 tons for iron ore and 0.4 tons for copper ore. All other minerals combined, more than 80 of them, accounted for only 1.2 tons per

capita. Agricultural products totaled 1.2 tons, and forest products, of which more than half was fuel wood, accounted for the remaining 1.7 tons of material per capita.

What are the trends of requirements and how can we reasonably expect to cope with them? That is the problem which the Twentieth Century Fund attacked on a broad front in *America's Needs and Resources*, the study that is summarized here with respect to natural resources.

Total requirements for the major material groups—metals, fuels, and forest products—in the period between 1919 and 1940, and even in the succeeding years of the war disturbance, show a consistent relationship to national income (adjusted for price-level changes). Production of basic minerals as a whole grew only slightly less rapidly than income. However, production of mineral fuels as a whole, as well as water power and total electric power for public use, grew more rapidly than national income; production of non-metallic minerals other than fuels grew somewhat less rapidly; production of basic metals, considerably less rapidly; whereas manufactured gas and lumber output not only failed to keep pace but actually declined.

In the case of iron ore, we normally supply between 90 and 95 per cent of our annual requirements from domestic reserve; the remainder, we import. We have tremendous reserves of low-grade iron ore, which is now considered too costly to process. The high-grade iron ore, which is economical to use, is not available in relative abundance. At the 1943 rate of use, reserves of this grade would last only 11 years. We may be able to draw on high-grade reserves in Canada's Steep Rock Lake area not far

from our own Lake Superior producing area. Meanwhile, it would be desirable to conserve iron and steel by such means as lighter construction, prevention of wastage by corrosion, maximum use of iron and steel scrap, and, where feasible, by substitutions.

It can hardly be emphasized too strongly that we have an extremely bad resource position in lead and, to a somewhat lesser degree, in zinc. The best estimate is that commercial lead and zinc reserves of the kind used when the war began would be depleted in five years at the peak wartime rate of use. Supplies, of course, could be extended by boosting the price to enable the working of tailings and lower-grade reserves as at present. But these sources are not sufficiently large to help over a long period, despite the retrogression inherent in such action. We may find ourselves becoming "chummy" with Canada and Mexico regarding supplies of these two minerals. Unfortunately, the dissipation of lead and zinc in the course of use is extremely high, and the flowback to secondary recovery is not a large sustaining source of supply for continuing requirements.

Copper is not available in great abundance in comparison with peak-period requirements. Though the known commercial grades would have lasted about 30 years at the immediate prewar level of consumption, they would last only about 12 years at the peak war rate, when we were supplementing domestic production with huge imports. A high re-use rate, however, helps in normal times. The attrition of copper during use is low, and the price is sufficiently high to encourage large recovery as scrap metal.

Magnesium we can have in abundance to meet all conceivable future requirements. Limitless sources which are practicable to use are sea water,

salt brines, magnesite, dolomite, and brucite.

Though coal production has been concentrated on the better beds and the more inferior beds remain, our bituminous coal reserves are adequate in total to meet even the wartime accelerated output for more than 1,000 years, and our anthracite resources for more than 175 years.

Oil and gas reserves present a special problem in that they will yield the liquid or gas only up to a given rate without damage to the producing reservoirs. This rate has been about equalled or possibly exceeded for petroleum and may be reached for natural gas in a few years. Productive capacity for petroleum is expected to decline in the face of rising demand. A similar situation is in prospect at a later date for natural gas.

The total volume of petroleum and natural gas in the ground is not definitely known. The best available information is that proved petroleum reserves would last not more than 15 years at the 1940 rate of production and total proved and unproved reserves less than 30 years. Corresponding figures for natural gas are 25 years and 50 years, respectively. These figures, of course, should be subject to the important qualifications that the life of the reserves may be cut far short by rising demands, and that the maximum efficient rate of production may steadily diminish. We appear to be on the verge of a fortunate solution or at least partial solution of the problem posed by these limited reserves as a result of the rapid progress that is being made in the technology of producing liquid fuels from coal and oil shale, both of which are far more abundant than natural petroleum.

There are certain facts which support

the belief that reasonably adequate supplies of raw materials for a high standard of living can be assured: First, is the discovery of new resources. Improved methods are being developed to locate deposits of valuable minerals. Deep drilling for oil, for example, has located new potentials promising large supplies. Second, is the introduction of more thorough methods of extraction. Third, is the substitution of less scarce for more scarce resources. Much has been learned in the past six years, for example, regarding the substitution of more readily available metals in alloys. Fourth, is the trend toward economy in the use of materials—lighter and better construction and processes that conserve materials, such as the electroplating method for applying tin with a saving of upwards of 50 per cent of the metal. Fifth, is the use of by-products formerly discarded. Sixth, is the trend toward the use of a wider variety of resources, thereby spreading the re-

source base and reducing dependence on a few materials. Finally, there is the discovery of new techniques for utilizing basic resources, a factor which promises to be even more important than the discovery of new resources themselves. The splitting of the atom is our most spectacular example of this new technique.

Though there has been a more or less inevitable working out of the foregoing factors to maintain our resource position, it would seem wise to give special attention to: (1) promotion of intensive research to develop new techniques for utilizing our abundant reserves of low-grade resources; (2) reliance on imports to the extent necessary to compensate for deficiencies of domestic resources; and (3) stockpiling of materials that can be stored without excessive deterioration and that may be vital necessities in an emergency.

By WILBERT G. FRITZ. *Dun's Review*, February, 1948, p. 14:10.

So You Want an Assignment Overseas

By ALEX J. WERTIS

Personnel Manager
United States Steel Export Company

A PLANNED and coordinated personnel training program is a recognized requisite in an organization engaged in export activities. Such a program calls for the formation of training groups at various levels of experience, namely: (1) clerical positions; (2) supervisory, technical and non-technical positions; and (3) line and staff positions within the general office and for overseas assignment in various capacities.

Courses should consist of thorough

exposition of company history and organization; product information; selling and distribution methods, including legal aspects; office and warehouse routine; policies and procedures; service opportunities; and the fundamentals of selling.

It should be recognized that training and experience alone do not qualify personnel, though by means of planned personnel selection, training, and development it can be hoped to improve per-

sonnel effectiveness and provide a more flexible organization.

Since this discussion deals primarily with an assignment overseas, however, let us see what the requisites are for success in overseas work. There are several—all of them important. Following are some of the most significant ones, together with suggestions that might be given personnel assigned overseas:

1. *Adaptability.* Develop the ability to feel at home in new surroundings, to regard customs different from those of the United States as natural. Be adaptable to new ideas.

2. *Resourcefulness.* Draw on your training and experience to meet difficulties you will encounter. If you don't know the answer, know a good place from which to obtain it. Be able to act on your own responsibility, use good business judgment, demonstrate organizing ability and leadership.

3. *Understanding.* Be the kind of person others like to have around. Take a warm, friendly human interest in the life of the people about you. Understand what they are doing and why they are doing it. Try to be a good member of the community. Make it a point to enjoy your work and environment and not harbor the thought of getting back to the United States—away from it all.

4. *Personal Relations.* How about your ability to get along with other people? This does not mean only people of your own class or of your own circumstances. It means all kinds of people—rich or poor, intelligent or illiterate, native or foreign.

5. *Patience.* You may be a world-beater—in your own estimation. Remember, however, others may not always agree with you. Worst of all,

they may be right! Take a tip from that familiar advertisement—"Some Things Can't be Hurried." A lot of people like to take their time. They act only on conviction. Your job is to convince them, and it usually takes a lot of patience to do it. Above all, be cooperative and have a tolerant attitude.

6. *Health.* It is most important that you keep yourself in top physical condition. Your business and social habits should be beyond reproach.

Now, how about professional requirements? Some time ago the Department of Commerce enumerated some professional qualifications for men going overseas. They are:

1. Good address and appearance, which include the personality items of good manners, correct speech, and well-groomed appearance.

2. Fundamental knowledge of the principles of international trade, economics, banking, commercial geography, and international law.

3. Thorough knowledge of international trade movements and practices.

4. Thorough knowledge of export trade technique.

5. Thorough reading and speaking knowledge of at least one foreign language of commercial importance.

6. Residence or travel abroad highly desirable.

7. Experience in some business undertaking, which gives a broad view of trade development and an intimate knowledge of business practices.

8. Ability to address public gatherings.

9. Ability to write clear, business-like reports.

10. A knowledge of the resources of the United States and familiarity with the industrial development of this country in relation to both domestic and foreign trade.

In conclusion: It should be emphasized that *enthusiasm* gives a person a decided edge over the fellow who lacks it, and that the finest education is useless without *common sense*!

How Private Detectives Guard Business

CRIME pays. It pays the 4,500-5,000 licensed detective agencies in the United States, which earn anything from bare expenses up to a gross of \$5,300,000 a year. About 60 per cent of their cases and 80 per cent of their income reach detectives from business sources.

Detectives would rather prevent crime than hunt criminals. That way the dicks make more money for themselves and save more for their clients. But they say that nine out of 10 business men act only after the horse is stolen.

Business men also make detectives unhappy by prejudging a case, limiting the scope of the search, and wanting to know the costs in advance. What detectives like best is to offer the following services on a *per diem* basis, plus extra costs: guarding of plants, persons, money, and estates; removal of employee temptations; spotting of potential criminals; checking of invisible thefts.

All operatives work on an eight-hour day, time-and-a-half for overtime. Personal bodyguards cost \$15 a day. Plant guards, in or out of uniform, come at \$12, their supervisors at \$15; but dicks in formal attire for social events get \$25. Process servers (\$12) are cheaper than shadowmen (\$15), and on long-term contracts a hotel detective can be engaged for \$15. A client gets into big outlay only when he requires the services of a district supervisor (\$25) or a regional manager (\$50).

Detectives warn their clients to keep safes invisible from the street, to burn a nightlight over safes and other money deposits, to vary the routine of their watchmen, not to give employees written safe-combinations.

But these are commonplace precautions. Detectives will investigate the man who rents adjoining office space—he may come through the wall some night. They will check burglar alarms, hinges on padlocked doors, plastered-over skylights—see that there are no *invitations* to theft.

Detectives will spot-check the habits of employees. The clerk who spends his lunch hour at the bookmakers, his evenings at the honky-tonks, is often on his way to crime.

Similarly, good detectives will advise clients to know a man's background fully before giving him a position of trust. This caution applies to new partners and credit customers, to persons seeking to buy large blocks of stock.

They also protect business against unintentional robbery. A snippy salesgirl or rude gas station attendant is withholding income by withholding courtesy. Many a merchant wonders why his old customers are shopping across the street. Detectives try to uncover the causes.

How does a business man go about choosing a detective firm to protect him from such leaks? He can consult the yellow pages of telephone directories or the *Detective Blue Book* (Interstate Service Company, Box 30, Cedartown, Ga., \$1).

Old-time detectives suggest one sure-fire way to recognize a no-good agency. Simply ask: "Can you guarantee results on this job?" If the answer is yes, look for another agency.

—Kiplinger Magazine 1/48

Irate industrial relations man's wife: "I'm sick and tired of all this, and I think I'll just go on strike and see how you like that."

Industrial relations man: "Go ahead. But if you do, I know some darn good strike-breakers."

—Labor Trends & Policies (Toledo Research Bureau, Inc.)

OFFICE MANAGEMENT...

How to Start a Form Control Plan

BUSINESS moves on forms. In some organizations, however, the forms seem to have become more important than the jobs they are supposed to accomplish. Here is how to cut forms down to size and put them to work intelligently:

Centralized control of forms should be established for the definite purpose of reducing expenses, of eliminating duplication and waste of time and material, and of assuring standardized practices and thus maintaining uniform setup, proper coordination, and proper identification of the forms themselves.

Following is a brief check list designed to point up *some* of the factors that should be considered in any forms control program:

1. Can any unnecessary forms or reports be eliminated?
2. Can any unnecessary columns or lines on forms or reports be eliminated?
3. Can the number of copies be reduced?
4. Can last digits on some statistical reports be eliminated?
5. Would an existing report or tabulation serve the purpose for which another report is being prepared?
6. Can any waiting or traveling time of papers be eliminated?
7. Do the forms, as prepared and distributed, adequately check, regulate, and control the operations for which they were designed? Are the purposes accomplished in end results?

Some of the suggested major duties of the established authority for forms control are:

1. Authorizing new forms, including designing; checking needs, quantities, functional requirements, and usage; assigning and registering form numbers; and furnishing specifications.

2. Revising forms, including the obtaining and adopting of suggestions covering improvement of forms and their handling.

3. Cancelling forms because of combinations, changes in procedures, and discontinuance of certain functions.

4. Maintaining a stationery stock catalog showing form numbers, form names, and suppliers. A logical and satisfactory method of assignment of form numbers consists of a series of numbers for departmental grouping plus groups for letterheads and envelopes, followed by letters as follows:

B representing book
C representing card
E representing envelope
P representing pad
S representing single sheet
T representing tag
X representing continuous and snap-out.

In some instances, the above letters would then be followed by:

A representing 25 sheets or sets
B representing 50 sheets or sets
C representing 100 sheets or sets.

"X" snap-out forms may also have a suffix number to represent the number of parts in a snap-out set.

Thus, F 12-125PB would indicate form number 125 under department number 12 and would be furnished in pads of 50 sheets or sets. F 8-67X8 would indicate form number 67 under department number 8 and would be furnished in snap-out sets of eight sheets each.

5. Maintaining a form file which would include copies of specification sheets on all new, revised, and cancelled forms as well as printers' samples of

each form. This file would also include samples of certain forms that do not bear form numbers such as special trial forms in the experimental stage and certain work sheets and form letters produced by outlying offices. In this latter classification would fall some forms for temporary or out-of-the ordinary use where registration would be impracticable.

6. Planning and conducting surveys pointing toward improvements in forms, systems, and procedures.

7. Preparing information for necessary bulletins and instructions regarding use of forms.

8. Investigating application of new office equipment and systems to current work.

9. Approving or reviewing for approval purchase of office machinery and equipment.

10. Maintaining report registers covering essential details regarding all authorized reports. Report register

sheets should be arranged by departments, and space should be provided for report number, report name, preparing office, frequency, when and where due, form in which presented, number of copies, disposition of copies, description of contents, and dates of approval of original preparation and subsequent revisions.

11. Maintaining manual for retention and destruction of records, showing form numbers, form names, and retention periods in the various offices. This manual would also include provisions for retention and destruction of records other than those on numbered forms.

The wheels of industry virtually turn on paper (forms). Business starts and stops through the use of forms. Considering its present-day importance and the value received in increased efficiency, forms control is a science worthy of specialization and careful efforts.

By WILLIAM E. SEXTON. *American Business*, January, 1948, p. 16:3.

Office Jobs Can Be Hazardous

THE safety profession has not in the past given the office worker the same benefit of preventive procedures as has been given the worker in the plant. The trend today, however, is toward a heightened interest in office safety. Discussed here, therefore, are several office hazards, some unusual, many so commonplace they are overlooked in most offices. Suggestions and methods for their elimination are also presented. These hazards are offered as typical rather than comprehensive.

In the author's organization, the files in all departments, with few exceptions,

are vertical, steel cabinet type, having three compartments to a section; they are placed back to back in pairs, in many cases serving as separators between departments or sections. Though considerable material is placed into or taken out of the files daily, not a single accident has occurred because of tipping. There have been several cases, however, where female employees have injured their fingers while closing the roller-bearing drawers of the cabinets, or bruised their legs because they left a drawer open.

Card index files, when placed on top of large correspondence file cabinets, or

near the edge of cabinets, desks, bookcases, etc., easily overbalance and may fall when two or more drawers are pulled open. This may also happen when the full drawer at the top of an otherwise empty cabinet is opened. To prevent accidents of this kind, we have found, the cabinets should be fastened together when placed side by side in series. When used separately, they should be secured from the back or to the floor to prevent tipping.

Correspondence filing cabinets with projecting locking devices, or those which extend in aiseways because of their depth, may constitute a hazard to persons passing by; this is particularly so if an occasional cabinet of this type is out of line with the rest. The removal of such a cabinet and replacement by another of uniform size not only eliminates this danger but, incidentally, enhances the appearance of the office.

Tension of springs on self-closing doors is frequently too great, causing the door to close too rapidly and strike the employee passing through or someone entering the doorway.

Employees frequently try to rearrange office equipment, and in doing so injure their fingers or hands between desks. (Rearranging of office equipment by clerical employees is forbidden in the author's organization.)

Highly waxed linoleum floors are dangerous, especially for women wearing high heels. This is particularly true when humidity is high. Accidents can be minimized by keeping floors dry and not waxing the linoleum. (Some companies require their employees to wear low-heeled shoes in the office.)

Ladders used in offices should, of course, be provided with non-slip material on rungs as well as shoes for the feet, and should be suitable for the purpose intended and maintained in strict serviceable condition. If ladders have

feet on casters, these should be controlled by brakes or locks; side rails should extend to top of ladder or base of platform at top of ladder.

Careless use of pins, thumb tacks, scissors, frequently results in injuries with danger of infection. Pens, pencils, steel erasers, carried upright in belts or in pockets of vests or coats, are dangerous. Employees should be warned against such carelessness.

Broken glass should never be placed in waste baskets.

Fatigue, poor lighting or ventilation are responsible for numerous accidents. Rest periods are highly desirable in preventing fatigue. In some organizations, the rest period was formerly confined to mornings, but it has now been extended to afternoons also. Ten to eleven in the morning and around three o'clock in the afternoon are indicated as periods when accident occurrence approaches its peak. Lighting and ventilation should be studied in every organization and, if found inadequate, improved.

Loose papers, telephone books, catalogues, and other materials may cause slipping or create a fire hazard.

Other sources of danger are metal lockers not properly secured to floor, loose linoleum, open lower desk drawers, defective fan guards, poor electrical connections, temporary wiring, keyed light switch near or adjacent to shower or plumbing, extension cords loose on floor. In case of defective electrical connections or wiring, don't attempt repairs; pull out switch and notify electrician.

Oily rags, stacked newspapers, or other printed matter containing ink may cause spontaneous combustion.

Defective flooring should be repaired.

Where offices are air-conditioned, windows should not be opened by any-

one except those attendants qualified to do so.

Fans for cooling should be thoroughly inspected by an electrician before installation.

When a person enters a vault, care should be taken that the vault door is not closed after entrance. Where possible, an inside door handle should be provided.

Persons sitting at desks should sit on chairs properly—not on edge of chair; this causes unnecessary fatigue; furthermore, the chair may slip out

from under and cause an accident. Care should be taken also that defective chairs are not being used.

The foregoing list of possibles should provide those responsible for cutting office accidents with much food for thought. It should point the way toward an effective program for the promotion of office safety.

By EDWARD N. LANDRY (Director of Safety, Chicago Park District). *Office Management Association of Chicago Monthly Bulletin*, March, 1948, p. 5:3.

Office Space Problem Solved with Templates

THREE-DIMENSIONAL templates used in planning office layouts are an important factor in gaining a better utilization of space recently when the Pacific Coast office of Metropolitan Life Insurance Company, San Francisco, was rearranged.

Arnold B. Brown, assistant resident manager of the Pacific Coast office, reports: "The idea was to give management a visual concept of new arrangements in miniature so the layouts could be studied before actually authorizing the moves. The advantage over paper templates or drawings, of course, is that it gives height perspectives which, when considered in relation to sources of light, ventilation, aisle arrangements, proximity to other departments, building obstructions, etc., are important factors in planning the well-laid-out office.

"The ease of altering the positions of the individual pieces on squared-off scaled paper makes it possible to try all types of arrangements in a relatively short time, without the use of conventional drawing equipment. The templates are constructed from wood and are roughly made to resemble the equipment represented. Length, height, and width dimensions are suitably stamped on each piece, and the templates are put into use by applying adhesive to their bottoms so one side sticks to the template and the other to the scaled paper by application of slight pressure."

—American Business 1/48

Overtime Pay Practices in Insurance Companies

OVERTIME pay practices in a representative sample of 80 American insurance companies were scrutinized recently in a National Office Management Association survey. Following are the major findings:

1. 56 per cent with a workweek of less than 40 hours pay overtime after the standard weekly hours have been worked.
2. 44 per cent with a less-than-40-hour week do not pay overtime until more than 40 hours have been worked.
3. All companies reporting a 40-hour week (30 per cent of total) pay overtime for over 40 hours weekly.
4. 17 per cent pay overtime daily after normal daily hours have been worked. Half of these companies pay both daily and weekly overtime.
5. 8 per cent give time off in lieu of paying overtime.
6. 70 per cent of the companies work less than 40 hours weekly. Of this group, the 37½-hour week is most popular (22 per cent). The scatter up to 40 hours and down to 35 hours from this mode is approximately the same, with concentration points at 38¾ hours and 35 hours.

—VAUGHN FRY in NOMA Forum

PERSONNEL...

The Function of the Controller in Union Negotiations

By WILLIAM W. MILLER*

WHENEVER anyone is speaking about collective bargaining and wants to get some applause from a management group, all he has to say is "If you want to be successful in collective bargaining, the first step is to fire the lawyer."

This has almost become an axiom, and since I handle collective bargaining for our company, and since I am a lawyer, I thought it best to analyze this statement. I don't mind truisms, such as "Lawyers need to be paid a lot of money," or "Lawyers can't do mechanical things around the house," but when they say that "Lawyers can't handle collective bargaining," I begin to get excited about it.

What is really meant, I believe, is that collective bargaining cannot be handled from a legalistic point of view. I subscribe to that statement wholeheartedly.

We can also state accurately that collective bargaining cannot be handled from a coldly actuarial point of view. Too many controllers, however, recognizing this fact, conclude that they have no responsibility for collective bargaining. But this attitude is 100 per cent wrong, in my opinion. I believe the controller has definite responsibilities in connection with collective bargaining.

The first and most obvious responsibility arises when the union presents its proposals for a contract. The controller must analyze these and determine the costs involved in each.

Second, he should devise methods to explain these costs as simply as possible, so the average workman can understand them. This involves breaking down of the cost items, explanation of the method of ascertaining them, and the use of charts and graphs. An experience our company had involved the explanation of the effect volume has on profits. We had to show what variable costs and fixed costs were. We had to demonstrate the high volume of sales which were required under existing conditions in order for us (1) to break even, and (2) to earn our dividend requirements.

Third, the controller should suggest alternative proposals which will reduce or eliminate costs. To take an obvious example, let us assume the union is demanding retroactive pay to a certain date. In some cases, it may prove cheaper to give retroactive pay than to make some other concession. It is in such matters that the controller should provide some advice. But more than that, he could suggest a lump-sum payment which possibly might be less than the retroactive pay would be, and which in any case would eliminate the book-keeping problems involved in making a retroactive wage adjustment.

The most important role the controller can play in collective bargaining, however, arises continually throughout the year—and not just at the time that a new contract is being negotiated. The chief aim of any sound labor relations

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policy is to get every employee, as well as the union representing the employees, to realize that the interests of the company and the interests of the employees are the same.

To illustrate: In every one of our union agreements, we have an "Intent and purpose" clause which, with some variations, runs as follows:

Both parties recognize that it is to their mutual interest, and to the best interests of both the company and its employees, if the quality of the company's products is improved and the manufacturing costs reduced.

We have to make our employees understand the economic facts of life. They must realize that improved machinery, better methods, increased efficiency, and every other method of reducing manufacturing cost, provide more jobs, better jobs, and more secure jobs for the workers in the plant.

A policy of telling employees the facts about the company freely, and in

a way they can understand, is one of the best means of accomplishing the desired end. It is the controller who has the figures. And it is he who is best qualified to devise methods of getting the company's story across.

To summarize: The controller has an important function in the actual processes of collective bargaining: (1) in analyzing costs; (2) in explaining his figures; (3) in suggesting alternative proposals; and (4) sometimes in actual participation at the bargaining table—but he has an even more important job in educating the workforce, so that when the actual collective bargaining meetings take place, there will be a better chance of achieving a successful contract.

From *Industrial Relations and the Controller*, Controllers Institute of America, 1 East 42nd Street, New York 17, N. Y. 32 pages. 50 cents.

Apprenticeship Programs on Increase

THE number of employers who have registered apprenticeship programs totaled approximately 150,000 at the end of March, according to the Bureau of Apprenticeship, U. S. Department of Labor. This represents a gain of 62,500 over the 87,500 listed at the end of March, 1947. The number of joint management-labor programs also set a new record at the end of March, being 5,989.

Urging that all employers have their apprenticeship programs registered, William F. Patterson, Director of the Bureau of Apprenticeship, stated: "Registration of these programs with the proper agencies enables industry to obtain needed facts on what is being done in the field of apprenticeship and what more remains to be done. Registration also means that a program has been certified as adequate for the development of competent craftsmen."

Foot Clinic Keeps Workers on Their Feet

EARLY last spring, a group of employees at Fulton Bag and Cotton Mills, Atlanta, Ga., came off shift looking dead tired. They didn't walk. They shuffled. And they seemed to favor their feet.

Next morning the same group was observed again. A night's rest had made a big change. The shuffle had gone. The pace was alert. Here, obviously, was something worth investigation.

It turned out to be sore feet. Management acted promptly and set up a free clinic with a podiatrist in charge as part of the company's medical and dental program. The success of the service has led the company to a recent decision to extend its benefits to families of all employees at an early date.

The company's expense (\$3,000 for equipment plus retaining fees) has been amply repaid in declining absenteeism and improved worker production.

—TROY B. STONE in *Factory Management and Maintenance* 3/48

Union Security Clauses Since Taft-Hartley Act

CONSIDERABLE confusion as to the meaning and intent of union security provisions of the Taft-Hartley Act is revealed in a survey of union security clauses in recent labor contracts which has just been completed by the Conference Board.*

Of the 230 contracts signed since June 23, 1947, 48, or 20.9 per cent, contain types of check-off clauses on which doubt has been expressed by governmental and labor relations authorities as to whether they meet the requirements of the Act. For example, seven of the 230 contracts analyzed contain automatic check-off clauses which require the employer to deduct union dues from the worker's wages without first securing a written authorization from the individual worker.

The survey reveals that of 100 contracts signed since August 23, 1947, union and employer negotiators agreed in 66 cases to some form of union security, while in 34 cases they did not. None of the negotiators agreed to the closed shop, which is specifically banned by the Taft-Hartley Act.

Labor and management negotiators agreed to a union shop in 17 cases of the 100 contracts analyzed. (The union shop is permitted by the Taft-Hartley Act only if a majority of the workers in the collective bargaining unit vote for it in an NLRB-conducted union-shop election.) In 11 of the 17 contracts, the negotiators agreed that the union shop would not go into effect until after this vote; in six contracts there was no provision for an NLRB-conducted union-shop election.

The negotiators agreed to the maintenance-of-membership clause in 15 contracts. In seven of the 15 contracts that contain maintenance-of-member-

ship clauses, the negotiators provide for this election; in eight they do not.

In the 100 contracts studied, the maintenance-of-dues clause is evidently the most popular form of union security. In almost one-third of the contracts, negotiators agreed to this type of clause; of 66 contracts providing for some form of union security, 28 provide for maintenance of dues.

An analysis of 230 contracts signed since June 23, 1947, the effective date of the check-off sections of the Taft-Hartley Act, shows that in 168 (or 73.0 per cent) of the cases, the negotiators agreed to check-off clauses; in 62 (or 27.0 per cent) of the cases, they did not.

Check-off clauses in the 230 contracts break down into five types, the analysis notes:

Automatic: Employer agrees to deduct automatically dues and other monies from the worker's wages and turn the money over to the union (3.0 per cent, or seven contracts).

Involuntary irrevocable: Employer agrees that, to secure and keep his job, a worker must sign a form authorizing the employer to deduct "union dues and other monies" from his wages (2.2 per cent, or five contracts).

Voluntary irrevocable: Employer agrees to deduct "union dues and other monies" from the worker's wages only if the worker signs a form authorizing him to do so. The worker's authorization shall not be irrevocable for more than one year, or beyond the termination date of the contract, whichever is sooner (28.3 per cent, or 65 contracts).

Year-to-year voluntary irrevocable: Employer agrees to deduct "dues and other monies" from the worker's wages if the worker signs a check-off authorization. If the worker does not revoke his authorization at the end of a year

* The Conference Board Management Record, February, 1948.

or at the contract termination date, it goes into effect for another year (15.7 per cent, or 36 contracts).

Voluntary revocable: Employer agrees to deduct "union dues and other

monies" from the worker's wages, if the worker signs a form authorizing him to do so. The worker can revoke this authorization any time he sees fit (23.9 per cent, or 55 contracts).

The Employee Credit Union

AS hitherto scarce consumer items reach the market in ever-increasing supply, the value of the employee credit union—diminished somewhat as a result of wartime shortages—again becomes apparent.

Many companies have organized credit unions as a result of employees' requests for some plan to enable them systematically to save a certain portion of their salaries through weekly payroll deductions. Other credit unions were organized because management recognized the need for some plan to provide employees in the low-income groups with funds to enable them to take advantage of good buying opportunities, or to protect workers in financial difficulties from the exorbitant rates charged by loan sharks.

Regardless of who is responsible for the idea, when it has been decided to set up such an organization under the state law, the charter and by-laws must be secured from the state banking commission. This provides for a board of directors and certain committees to be elected by the membership of the group. The board, which must consist of at least five members, has charge of the investment of funds, except loans made to members. The loans are made by a credit committee consisting of at least three members.

Another committee, generally known as a supervisory committee, examines

the affairs of the credit union and is responsible for the quarterly audit of the books. This committee—by unanimous vote—also has the power to suspend any officer of the union or any member of the board of directors or of the credit committee. In addition, it may call special meetings of the membership to consider any violation of the by-laws or other infringements of the rights of the membership.

Members of the credit union are entitled to buy at least one share of stock at a par value of \$5, which may be paid in installments. Regardless of number of shares held by a member, however, he is entitled to only one vote. As a rule, loans are small, amounting to less than \$200, and interest is usually set at not more than 1 per cent per month on the unpaid balance.

Amounts earned on the shareholders' money is shared by the members at the end of the year. Dividends are generally limited to 6 per cent, excess earnings going to surplus. In recent years, because of the reduction in employee demand for loans and the low interest rates on investments, dividends have seldom been more than 3 per cent.

In addition to their usual functions, a number of credit unions also serve as an employee service unit. For example, employees of the Plomb Tool Company, Los Angeles, can pay their utility bills,

cash their pay checks, purchase money orders, obtain automobile and property insurance of all kinds, buy postage stamps, and purchase government bonds at the credit union office.

Another special service sometimes offered through the credit union is the Christmas savings club. This operates as a simple payroll deduction and makes it possible for workers to have a special small fund for the purchase of their Christmas gifts without disturbing their regular credit union savings.

The Merck Credit Union (Merck & Company) has set up a vacation counseling service in connection with a travel bureau to help employees plan their summer holidays and week-end trips.

Some firms are doing an excellent job of selling the credit union to their employees. One of these is the Weirton Steel Company, Weirton, W. Va. A recent issue of *Weirton Steel Employees' Bulletin* featured an article under the title "A Million Bucks—Brother, That Ain't Hay!" which dramatically told the story of how the credit union is serving Weirton workers:

A million dollars has been paid out in helpful loans to Weirton workers since 1939 by the Steel Works Employees Federal Credit Loan.

In 1939 a group of Steel Works Employees conceived the idea of organizing an institution to encourage and promote thrift among the employees and to provide temporary loans to workers at a cost lower than that normally charged by professional loan companies.

You can have any amount, from \$1 up, deducted from your pay toward establishing a savings account. This sum will be noted on your pay stub. The initial membership fee is 25 cents, which goes into a reserve fund.

Questions in the mind of the average worker regarding the credit union generally follow this pattern: What is the credit union? How can I join? How much can I borrow? How safe is my

money? Are all transactions handled confidentially? Do I receive any dividends on my savings? May I withdraw my savings at any time?—and so on.

The Scanner, published for employees of Libby, McNeill & Libby, handles such information through a question-and-answer column:

Q. What good will the Credit Union do me?

A. 1. It will help cultivate the habit of making regular savings.

2. It will be a source of obtaining loans for all necessities.

3. It will offer a safe place for your regular savings, plus a fair return.

4. It will enable you to help your fellow man in meeting emergencies and in improving his condition.

Though the credit union has been fully explained in the employee magazine, it is a good idea to run such a column now and then to give new employees information and, at the same time, stimulate interest of old employees who have not yet joined the credit union.

A recent article in *The Staley Journal*, entitled "When You Need Money," concentrated on the history of the A. E. Staley Manufacturing Company (Decatur, Ill.) Credit Union, and on the uses to which loans in the past have been put. Several photographs accompanied this seven-page article, aimed at showing the employees what their savings can buy. This idea is psychologically sound, for such pictures "talk" to the employees in terms of purchases (their desires and wants) rather than in terms of money. It is often difficult to make a man see that he should save a regular portion of his income; but if he is shown what his savings will buy, it is much easier to get him to put aside a specified amount.

Artists' sketches, instead of photographs, can also add interest to an article. In fact, if photographs are not available, it is imperative that some type

of sketch be used to dress up these articles, which, to the average reader of an employee magazine, are likely to be dry as dust. If possible, these sketches should be a bit humorous, though if

they are sufficiently dramatic this is not necessary.

From *Selling Employees on Use of the Credit Union*. The Dartnell Corporation, Chicago. 11 pages.

Systematic Recruiting of Supervisors

THE recruitment of competent supervisors is one of industry's most important personnel problems. To offer suggestions for the proper handling of this problem, a method for the systematic recruiting of supervisors which has been adopted with profit by a number of large industrial enterprises in Sweden will be discussed in this article.

As the first step toward systematic recruiting, a plan showing the number of supervisors' jobs (existing and contemplated) in the various departments of the company is drawn up. For each existing supervisor, a column, whose height indicates his remaining years of service, is inserted in a diagram that shows the absolute minimum requirement of new supervisors. Mortality, sickness, and transfers will tend to increase the requirements.

After the management has thus obtained a picture of existing requirements, it advises the factory supervisory staff as well as representatives of the organizations of supervisors and plant workmen, each category in a separate meeting, of the plans for a systematic recruitment of new supervisors. The various department heads are then requested to select about 5 per cent of the number of workmen in their respective departments, against whose employment as supervisors no objections can be raised. It is important that this initial selection be not too narrow; otherwise, workers who for one reason

or another have caught the attention of their superiors may be chosen, while others equally well qualified are passed by. Moreover, when the promotions are finally made, it will be better for the morale of a man not chosen for promotion to be one of, say, 50 finally not selected than one of five. The selection is made in consultation with superintendents and supervisors—in some companies, also with labor representatives—in the departments concerned.

To those selected, the factory management sends notification as follows:

To satisfy the demand for supervisors during the next few years, approximately 15 workers will soon be chosen for future supervisory work. In order to make the selection as correct as possible, a preliminary list has been made up, including approximately 75 men, who have been selected as prospects insofar as general qualifications and age are concerned. We are pleased to advise you that your superiors have suggested that you should be included among these. Final selections will be made after a thorough and unbiased investigation.

We ask you to submit to the attached form, after entering the data required. You will also need a health certificate. You will be asked to undergo a medical examination by Dr. In approximately one week's time, you will be called to pass psychological aptitude tests.

Regular wages will be paid for the time spent on medical examination and the tests.

The form referred to above is detailed, requesting information on such matters as schools attended and time spent there, correspondence courses

taken, former employment, wages received at time of leaving former employment.

The candidates for supervisory positions selected are given a medical examination, physical and psychiatric; hereditary potentialities also are covered, as are social conditions.

In conference with the department head and superintendent of the department concerned, each selected worker is examined with regard to the following qualifications and with reference to the ratings specified:

Work Quantity: (3) always above average; (2) around average; (1) below average.

Work Quality: (3) very careful and painstaking; (2) usually free of serious faults; (1) faults frequently occurring.

Theoretical Knowledge of Work: (3) very good theoretical knowledge; (2) average theoretical knowledge; (1) insufficient theoretical knowledge.

Ideas in Work: (3) often new ideas; (2) sometimes new ideas; (1) never any new ideas.

Attitude Towards Work and Procedure Regulations: (3) hardly ever violates regulations; (2) sometimes violates regulations; (1) often violates regulations.

Capacity of Adjustment: (3) exceptional capacity of cooperation; (2) cooperates tolerably well; (1) often in disagreement.

Training Capacity: (3) learns very quickly; (2) learns comparatively well; (1) slow in learning.

Supervisory Capacity: (3) takes the initiative and leads others; (2) seldom takes the initiative and shuns responsibility; (1) requires supervision.

In this connection it should be borne in mind that in no case should an opinion be coerced. Only such opinions are registered as can be impartially corroborated by observations made on previous performance. The ratings are added up and the total divided by the number of ratings given. If the applicant has served as appointed representative for

the laborers or as safety representative, extra supervisor, team head, etc., this should be stated here. Everybody working in the same department must be rated simultaneously on a certain quality. When a certain quality in all employees is being rated, the best man, the average man, and the poorest one should first be picked out, so as to obtain a yardstick. The rater must not establish too high a standard, and he should not give too much consideration to previous ratings. One single incident should not be allowed to influence the whole rating, so that one failure on the part of the workman might reduce his rating all along the line.

At this point, psychological aptitude tests are carried out. As a result of discussions with supervisors and a study of supervisors on their jobs, a test has been devised in which 26 different situations describing actual instances in which supervisors have had to take action are presented to a group of prospects. To each situation seven different solutions, good as well as unsatisfactory, are given, and the problem is to choose the two alternatives which the applicant considers the most and the least satisfactory. In this way, the applicants can be divided into two groups: those who are able to find a satisfactory way of handling the situations, and those who are unable to do so.

In order to rate the results of the judgment test, it is necessary to classify in some way the correctness of the various alternatives. This has been accomplished by having 90 experienced and skilled supervisors, who have been classified as superior by higher executives, go over the alternatives given. The time spent by the subjects on the tests has also been used in grading the performance.

On the basis of all the information

gathered, each applicant is then discussed, and the desired number of prospects chosen from among those best suited.

Those selected are given an instruction course on the production and marketing problems of the enterprise, its welfare activities, and so on. They are then trained at some organization that specializes in non-technical instruction for supervisors. At the end of this training period, they are placed in dif-

ferent departments of the factory, where they work as substitutes, extra or assistant supervisors, until, as vacancies occur, they are permanently placed in supervisory positions.

Practical experience accumulated over a long period has proved that organizations which have utilized this method of supervisory selection have found it a highly satisfactory recruitment tool.

From an address by Gunnar Westlund at the Eighth International Management Congress, Stockholm.

How One Company Solves Its Food Problem

A KITCHEN-TO-SHOP lunch service that brings the food to the workman, instead of the workman to the food, is now operating successfully at the Barberton (Ohio) plant of The Babcock & Wilcox Company. It is the management's solution to the problem of distributing individual lunches simultaneously in 26 shops covering 78 acres.

The machine-side lunch service operates for all three plant shifts, serves an average of 1,650 lunches a day. All lunches are prepared and packed by the company cafeteria.

Menus, which double for order blanks, are available in each shop at the start of the shift. Orders taken during the first half of the shift by shop office employees are checked and packed in individual lunch bags by teams of cafeteria employees working in pairs.

The yard force, accompanied by a cafeteria employee, delivers metal transfer boxes filled with lunch bags to each shop about 30 minutes before lunch time. A shop employee then distributes the lunches, each marked with the shop clock number of the worker, to the men at their places of work. When the whistle blows, each man has his lunch beside him.

Each workman pays for his lunch when he places his order, and the total is collected at each shop by a cafeteria employee when the lunch hour is over.

Menus consist mainly of sandwiches, pies, cakes, ice cream, soup and beverages, though hot dishes have been served successfully.

A thermos bottle checkroom provides for hot coffee for those who wish it. Employees bring their own thermos bottles labeled with their shop clock numbers and shift numbers. These are filled with coffee at the cafeteria and after lunch are returned, washed, and stored until the next order for coffee.

This lunch plan grew out of wartime needs. Originally a shop cafeteria served lunches only to the day shift. When second and third shifts were added during the war, a food truck served them, bringing food to the shop. This plan meant wasted time for employees waiting to be served, however. A modern cafeteria completed in 1942, together with the old cafeteria, still did not meet complete needs of the day shift. Thus the new system was developed. As a result of this plan, it has been possible for the firm to close the old shop cafeteria and use the space for shop purposes.

• **THERE'S A MOVE** among the larger and more dramatic unions to suggest to management that negotiations be conducted publicly—usually at the town's public auditorium. Companies which have agreed found the following: (a) increase in absenteeism as workers took time off to "watch the show"; (b) negotiations dragged out as union negotiators played up to their audiences.

—Mill & Factory 4/48

How to Write a Good Job Description

YOUR company will probably need a modern job evaluation plan one of these days if you have none now. When it does, your organization will want job descriptions—but quick! A little advance thinking can save some nasty headaches—and probably some real dollars for the firm.

Job evaluation isn't being confined to hourly and clerical people any longer. Plans for rating supervisory jobs all the way up to department-head and vice-president levels are receiving more and more attention. Responsible supervisory jobs are particularly hard to describe.

Presented here are some suggestions which, coupled with a little advance thinking, will help in the preparation of good job description.

First, take it easy! Spread it out into easy steps, taking four or five days at least. Follow a schedule something like the following:

First Day ($\frac{1}{4}$ hour): Jot down a list of headings—somewhere from two to 10—denoting the major areas of the work. Never mind complete sentences. For example, a stenographer might list these headings: (1) Typing, (2) Short-hand, (3) Filing, (4) Telephone, (5) Receptionist.

Second Day and Third Day ($\frac{1}{4}$ hour each): Carry your list headings with you. As you think of them, add notes under your headings, pointing up parts of the work you hadn't thought of the first day. Also, revise headings or add to them. For example, the stenographer might add under "Typing" items like: composing letters for boss; statistical typing; typing stencils.

Fourth Day ($1\frac{1}{2}$ hours): Follow the steps indicated below. Begin with detailed duties. Never mind deciding on titles, lines of promotion, the general

summary, or other miscellaneous items. They come later.

A. Arrange your headings in logical order. One good way is by percentage of time. List first the work area that consumes the most working time normally. Next, the one that consumes the next longest period, and so on. Another good arrangement is job sequence order. List the first job operation first, the second operation second, etc.

B. Now, develop paragraphs under each heading. Do this by asking: What is done? Where does the work come from? Where does it go? When is it done (regularly, infrequently, are there deadlines or quotas)? Why is it done (briefly state where it fits into the process or flow of work)? How is it done?

Follow these suggestions:

1. Start each paragraph with an active verb. A stenographer would begin: Types letters to. . . . A welder would start: Cuts metal with torch. . . .

2. Use telegraphic style. Never mind complete sentences; just make sense.

3. Avoid use of general words (maintains, checks, handles, prepares, takes care of, etc.)—unless the level of work is further specified. State *how* an employee "takes care of" something. A janitor takes care of a boiler; but so does the fireman. A typist may "prepare" a report by straight copy typing. Or she may search the files and set up her own format for the report. The levels of work in these cases are different. If you use general words, tie them down by further statements.

4. Use plenty of examples. One or two examples frequently are clearer than several sentences of description.

5. Do not give mere opinions. Check your paragraphs to see that you have included facts only. If you feel you must include statements like "this is difficult" or "this is important," be sure to add a "because" clause backing up your opinion.

6. Re-check each paragraph. See that each paragraph answers the questions listed above or that the answer is obvious from the context.

Next, assign approximate percen-

tages. In the left margin, opposite each heading, estimate the approximate proportion of working time, averaged over an extended period, that is spent on each division of work.

Finally, write a general summary. This should be brief and will go at the head of your description. It will help those reading the description to orient themselves to the type of work they are going to read about. Start with an indication of the type of supervision received, and don't use more than 40 or 50 words. A general summary for our stenographer example might read: "Under detailed supervision, serves as stenographer and general clerical assistant at the X Street Office."

Fifth Day ($\frac{1}{2}$ hour): Review what you did yesterday. Run these checks on your work, making additions as necessary:

1. Have you indicated clearly the knowledge and skills required on the job? Is it apparent what degree of manual skill is required? Have you brought out the complexities of the job fairly? Have you indicated the seriousness of any errors that might occur?

2. Have you shown the responsibilities and authority inherent in the job? Is there any responsibility for safety of others?—for supervision of others?—for handling especially confidential matters?—for contacting the public,

customers, or other employees? Have you indicated how independently of supervision the job is performed?

3. Have you included a statement of working conditions. Are there unusual amounts of noise, dirt, temperature, or other disagreeable conditions? Are the hours irregular? Are there any particular hazards on the job?

Some job description forms provide spaces for answering some of these questions. Whether or not space is provided, be sure the answers are included, because each of these considerations is important in setting job rates. Also, be sure to add at the bottom of your description (or elsewhere if required by a special form) a statement of the amount of working experience and/or education normally required to perform the job satisfactorily.

Just one more tip! Review your job description every now and then, about every six months should be frequently enough, unless your job is changing rapidly. If revisions are called for, make them. If they seem significant, take them up with your superior. It will help him in controlling his end of the business. It will also help both of you better to understand your responsibilities.

BY JACK GRADY. *Mill & Factory*, February, 1948, p. 118:4.

Appraising the Personnel Function

AS WITH comparable functions like budgeting and planning, it is characteristic of personnel administration that its contribution cannot be measured objectively when it operates in the sphere of its greatest effectiveness, but its value is relatively determinable when it neglects its most important function. The paradox is simple to explain. The personnel director is essentially an adviser to management—from the top executive down to the first-line supervisor. As he performs this task, either effectively or poorly, his contribution is commingled with that of general management and therefore it is not separately measurable. On the other hand, if the personnel office confines itself to its own operations, it can boast of the number of applicants recruited, of training classes held, of jobs classified, and point to similar activities that are capable of statistical treatment. These are all useful and necessary services, but such reporting fails to demonstrate the personnel office's role in management decisions.

—MILTON M. MANDELL in *Elements of Public Administration* (Prentice-Hall, Inc.)

Dismissal Pay Provisions in Union Agreements

DISMISSAL or severance compensation generally refers to payment of a sum of money by an employer to an employee who is laid off or discharged through no fault of his own. The payment of dismissal compensation usually has been conditioned upon permanent separation from a company's payroll and loss of certain rights acquired on the job, such as seniority, vacation, pension, or retirement benefits. To an increasing extent, such compensation is made for layoffs as distinct from outright dismissal, and takes the form of a layoff allowance without the loss of seniority rights that would come with a dismissal or discharge.

The amount of dismissal pay is generally based on an employee's length of service with the company, his rate of pay during such employment, and the reason for his dismissal. A few companies' severance pay plans make no distinction as to reasons for dismissal and provide payment to employees discharged for cause as well as to those who retire or resign.

In only a few industries, notably newspaper publishing and railroad transportation, have such provisions been adopted to any considerable extent through collective bargaining procedures. Severance indemnity is treated as a basic condition in agreements of the American Newspaper Guild. It is regarded as important protection to members in newspaper mergers, depression layoffs, or capricious firings. The Guild regards severance pay as an equity which the individual employee builds up in his job and for which he should be compensated when discharged for cause or economic reasons, or when he resigns, retires, or dies. The longer an employee works for an employer, the

greater is his equity in the job. Dismissal pay, in the opinion of the Guild, tends to stabilize employment since dismissal of long-term employees can be expensive. Severance pay clauses are included in virtually all Guild agreements save those which prohibit any dismissals except for gross insubordination or dishonesty.

A considerable number of agreements covering clerical workers in office and industrial establishments, as well as technical and social service workers, provide dismissal pay. Scattered agreements affecting chemical, electrical machinery, gas, petroleum refining and production, radio, telephone, and telegraph, rayon yarn, and textile workers, among others, also contain severance or dismissal pay provisions.

Many agreements in providing dismissal pay do not distinguish temporary layoffs due to lack of work from permanent separation. Some use the term "layoff," others, "dismissal," and still others use both terms and allow dismissal pay to workers "laid off or dismissed." Office workers' agreements usually provide dismissal pay to workers laid off because of "retrenchment or reorganization."

In several instances, severance pay is paid on retirement and even on resignation. Occasionally, it is paid to an employee who decides not to return to work after maternity leave. Retirement benefits usually are limited to employees with long service—25 years or more. In a few instances, illness or old age may also be specified as necessary conditions.

As a rule, dismissals are compensated only if they occur through no fault of the worker. In certain cases, however, employees dismissed because of inefficiency or incompetency are given the

same amount, or a fraction of the amount, paid employees dismissed for other reasons:

Employees dismissed for unsatisfactory performance of work shall be entitled to terminal vacation pay, and one week's severance pay for each year of service up to a maximum of five months' salary Employees dismissed because of retrenchment or reorganization shall be entitled to two months' notice, terminal vacation pay, and one week's severance pay for each year of service up to a maximum of five months' salary.

Many Newspaper Guild agreements specify that veterans shall receive dismissal pay if disabled in service; some, in addition, make provisions for payment to beneficiaries in case of death in service.

Some agreements provide a uniform dismissal payment for all employees, regardless of differences in length of service or amount of earnings. More commonly, however, the amount is graduated according to length of service at the time of termination and the employee's salary.

In some graduated plans, the ratio of severance pay to service is uniform, such as one week's pay for every six or eight months' service; in others, the ratio is increased at certain intervals. While some of these graduated plans set no ceilings on payments, others establish a limit in the form of a specified number of weeks' or months' pay, or a specified sum:

When an employee is discharged after six (6) months of continuous service, he shall be entitled to severance pay, in cash in a lump sum, equal to one (1) week's pay for each thirty (30) weeks of employment or major fraction thereof, up to a maximum of twenty-six (26) weeks' pay.

The unit for determining compensation is usually a week's wages or salary. This may be computed from the highest salary received by an employee during his employment, or the highest salary

during the preceding six months or year or other designated period, or, again, on the basis of the average weekly salary or earnings received during a specified period (often six months or a year) prior to dismissal, or at the current rate of pay. State or federal taxes, or social security levies may be deducted from severance pay.

Dismissal compensation is usually paid in a lump sum, but a few agreements provide for instalment payments at regular weekly or monthly intervals.

The following clause provides that dismissal allowances be paid in weekly instalments to employees retiring because of illness or old age, and in a lump sum to other employees:

Upon dismissal, an employee shall receive, in cash, dismissal indemnity in a lump sum equal to one week's pay for every eight months' continuous service or major fraction thereof on any . . . enterprise, to a maximum of 28 weeks' pay, such dismissal indemnity to be computed at the highest regular weekly rate of pay received by the employee during the previous year.

In case of bona fide retirement from regular gainful employment because of physical or mental breakdown, or old age, the (employer) will pay the dismissal indemnity according to the above schedule, except that the (employer) may make the payment weekly, as the salary would become due, instead of in a lump sum.

Dismissal wage plans covering situations where technological changes necessitate labor curtailment often permit employees the privilege of accepting either a furlough or dismissal pay. Furloughed employees retain reemployment rights and preferences according to their seniority. Dismissed employees are given dismissal compensation and lose all reemployment rights, and, if rehired, are classed as new employees, without credit for seniority accumulated prior to dismissal. The following is an example of such a provision:

Should displacements be made because of technological changes, an employee so

displaced shall be given the option of becoming a displaced employee with the benefits provided under the terms of this agreement (severance pay) or being transferred according to seniority to the laid-off list.

Most union agreements, whether or not they provide for dismissal pay, specify that employees laid off shall not lose their seniority status if rehired within a specified period. Some agreements, particularly those of the American Newspaper Guild, in addition to providing dismissal pay, grant reemployment preference to employees who have been dismissed for reasons of economy; and, in a few cases, this right

is extended to all employees dismissed except those dismissed for cause. A few agreements in the former group limit the right to preferential reemployment to one year after the dismissal for reasons of economy or restrict it to union members.

From *Dismissal Pay Provisions* (preliminary draft of a chapter to be included in the revised edition of Bulletin 686, *Union Agreement Provisions*), Industrial Relations Branch, Bureau of Labor Statistics, U. S. Department of Labor; February, 1948. 29 pages.

PRODUCTION MANAGEMENT...

Do You Know the Full Capacity of Your Plant?

TO take advantage of today's abundant markets, the majority of manufacturers are increasing production to match sales demand. When this decision is made, the executive responsible for developing additional capacity usually does not know how far he can go without additional capital investment, or how much new equipment he should purchase. The production executive knows that bottlenecks appear here and there at frequent intervals. This may be the result of inefficient use of capacity already available, or it may be caused by lack of balance in the various shops and departments.

An expansion in plant capacity, to eliminate successfully one or more bottlenecks, requires careful analysis of both the real machine and man-hour capacity available and the efficiency of

machine utilization. This analysis is a fundamental step before decisions are made to acquire additional equipment, start overtime, start extra shifts, or subcontract toward accomplishing the desired production. These measures frequently are necessary only in certain parts of the plant in order to increase the production of the plant as a whole.

Systematic study of plant capacity clearly reveals the choke points and the degree to which they need to be augmented. Such a study may be divided into two parts, to enable management to see accurately the points requiring extra capacity.

Part One consists of an inventory of machines, benches, and workers available for production. This inventory of capacity is classified to determine all the machines and bench skills available

which are equally suited to perform the same kind of work. This is important as it shows the availability in hours for each productive classification.

The inventory and classification of machine capacity, however, are not enough. In addition, analysis of the effectiveness of each classification of machines must be made. Idle hours due to such factors as lack of help, lack of tools, or repairs must be spotlighted so that low utilization is immediately indicated for corrective action. This in itself, in many cases, may lead to discovery of an ample source of additional capacity. The inventory of machines with their real capacity expressed in hours, after consideration of the actual percentage of utilization, is then ready for comparison with the productive hours required, as indicated in Part Two of the study.

Part Two consists of determination of the hours required, by class of machines or bench skill, to manufacture the *desired quantity of finished product*. The first step here is the selection of the different types or models of finished product, commonly known as "sales-mix," which comprise the production schedule. Lists are secured, usually available as bills of material, which show all the parts to be manufactured and the occurrence of each part for each model or type in the sales-mix.

The operations required for each part are then analyzed to decide the classification of machines or bench work required and the running hours for each particular classification. Many concerns have this information already available, either in operation sheets, time studies, or historical data. Whatever the source of information, it is necessary to make an over-all check with the shop supervisory personnel to get the latest experience, both as to the

class of machines or bench skill used, and the running time.

Throughout this study and at the conclusion, the superintendents and foremen are consulted continually as to the accuracy of the data and their recommendations. Frequently they have ideas for increasing capacity which are original and effective.

The basic data on machine classifications used for manufacture and running times at each operation are then converted to machine and man-hours for each of the models or types in the sales-mix, and recorded as permanent basic data.

The sales, production, and finance divisions confer to decide the production quantities to be made for the future for each of the models in the sales-mix. This decision, with any detailed forecast, is timed so that the production program will be ready when the basic capacity data become available. The length of time, of course, depends on the type, size, and complexity of the business.

When the two parts of the study have been completed, a final report is prepared which compares Part One—the hours of capacity available for each productive classification—with Part Two—the hours of capacity required for the production program for each productive classification. The differences, either deficiencies or overages in capacity, are shown in the report by classes of machines and benches. From analysis of these differences, it is easy to see how much production can be increased without purchasing more machines. If a still higher production is desired, it is possible to find out where and how much additional equipment will be needed for the level decided on. In either case, the report makes definite recommendations as to improving

the planning, supervision, and tooling, for example, as well as overtime, additional shifts or subcontracting.

This report often includes an estimate of the capital investment needed to bring production up to the balanced level required to meet the sales forecasts. Addition of skilled workers of the various classifications and increases in floor space, or power load, can be incorporated in the estimate.

The conclusion of the report usually consists of a program, with time objectives, for a year or more in advance, indicating the executive action which must be taken in order to reach the level of production agreed upon by the company executives.

Wallace Clark & Company, 521 Fifth Avenue, New York 17, N. Y. 8 pages.

Cutting Damage in Transit

NOW that first-class containers and packing materials are once more available, cost-minded shippers are attacking the damage-in-transit problem anew. Conditions during and after the war made a high rate of damage inevitable. There wasn't much you could do about heavy loading of freight cars, shortage of experienced labor and proper materials, careless unloading, restricted use of steel strapping, etc.

Today, these causes are diminishing but damage is still high. Wise companies aren't leaving the problem up to the carriers. Even when the carrier pays the claim, damaged shipments cost you time in investigating and settling, to say nothing of loss of reputation and good-will with customers.

The fact that you don't get complaints on shipments doesn't necessarily mean your packing job is 100 per cent perfect. The railroads may be getting the complaints from your customers. (Railroads say that 95 per cent of damage claims are filed by the consignee.)

Experience of the railroads and express companies shows a number of reasons for damage which are within

the shipper's power to control. Here are the key points to check:*

Pre-test your shipping containers if there is any doubt about their strength. There are a number of standard methods used to test different resistance properties for various commodities. If you're not familiar with them, ask your trade association about what is being done in your industry. There are also a number of private laboratories which can do the work for you.

Carriers and industry associations are pushing to develop performance standards for shipping containers. These differ from standards based on materials specifications, in that *they measure the resistance of a container to the specific hazards it meets in transit*. Though some of the testing equipment is fairly expensive and requires trained operators, the drop table (which simulates rough handling) is one piece of apparatus that is simple and inexpensive. It is particularly handy for comparing the merits of inner packing materials, and for measuring closure efficiency. Some companies use it to

* See also: "Pack Up Your Damage Troubles," THE MANAGEMENT REVIEW, February, 1948, pp. 99-100.

spot-test claims made by container salesmen.

Causes of inadequate protection are numerous—faulty package design, poor containers or packing materials, wrong interior packing, unskilled use of filling materials and padding, improper closing, etc. Sometimes a change in the design of the product itself is necessary.

Don't hesitate to ask the railroads or trucking companies for advice. The Union Pacific has a container engineer whose sole job is to investigate container failures, analyze the causes, and suggest corrective measures to the shippers.

Follow a standardized marking and labeling system. And require a double check on addresses before the shipment goes to the carrier. Obvious as this sounds, shipments still get lost because of poor marking. It is especially important on express shipments. Shipping-room employees sometimes get careless and fail to remove old marks from re-used containers, or they use cheap ink or paint, or forget to enclose duplicate copies of invoices and addresses inside the package. Whatever

system you use, be sure the marking is *permanent* and *easily readable*—and check on your shipping department *regularly* to make sure they don't ease off.

Study new angles in carloading if you experience damage from cargo shifting in transit. Most damage in carload shipments comes from unoccupied space resulting from inadequate blocking or compression of the lading. Failure of bracing or bulk-heading also causes trouble. Other common sources of damage are poor car-door blocking and failure to remove nails, wire, boards or strips from the car before loading.

Simplest way to avoid carloading errors is to train all workers concerned with preparing, handling, and loading freight in the fundamentals. You can get a great deal of useful instructional material from the carriers. It's a good idea to have the relevant diagrams blown up by photostat or blueprint and place them on the wall for constant reference by your personnel.

Research Institute of America, Inc.
New York.

Carbide Dies Cut Costs

AWAR-BORN technique—the use of cemented carbide dies—promises to have wide effects in cutting production costs in industry. For the carbide dies, though initially expensive, are capable of long runs without resharpening and can be designed to cut down on intermediate stamping operations.

Most spectacular use today is stamping out lamination pieces of high-silicon steel (notoriously hard to cut) for transformers, generators, motors, and such. Automotive men are using the dies too—adapting them to long-run jobs, and saving plenty.

Simple, short-run jobs will, of course, still be done with steel dies. Reason: The much higher initial cost of the carbide tooling can be justified, in general, only when dies are used in long runs. Carbide die costs average at least four times those of steel, they run up to eight or nine times as much in some instances.

But—in the face of this initial cost handicap—carbide dies have already proved themselves on rough, long runs in many cases.

One user, for example, spent \$7,221 for a cemented carbide die. His steel dies for the same purpose formerly cost only \$2,500. But production from the steel die (up in the millions of units) is but a sixth of that projected for the carbide tool on the basis of wear until now. Hence, carbide-die cost can be spread over more pieces; die cost per piece will be about half what it was when steel dies were used.

—Business Week 3/13/48

Some Engineering Aspects of Quality Control

PRIOR to the development of quality-control methods and techniques, industrial management was handicapped in making decisions involving considerations of quality because of the intangibility of the subject. These techniques have made it easier for management to make wise decisions in matters concerning the cost of quality and the value of quality by providing a scientific method of measuring and recording quality. Some of the engineering considerations involved in applying these techniques will be discussed in this article.

In any manufacturing process, there will be two causes of variations which contribute to differences between units of completed product: (a) the chance causes, which stem from the inherent limitations of the production setup, viz., the uncontrollable variations in materials, machines, and human beings; (b) the assignable causes, which can be eliminated, and which should be eliminated if such action is economically feasible. Quality-control techniques permit management to recognize the presence of and thus limit the effect of these assignable causes.

While quality control is by no means limited to sampling inspections, these operations contribute so largely in the quantitative evaluation of quality that a discussion of some of the engineering considerations involved in planning economic sampling would appear to be justified.

Determining whether or not sampling inspection is economical and feasible and, if it is, which of the many types of sampling plans should be used, must include determination of: (a) whether the aim is to limit acceptance of more or less isolated lots of product to those lots which contain no more

than a specified maximum per cent defective, or to control the average per cent defective of a series of lots of product which may later lose their identity in subsequent operations, in stockrooms, or in shipment; and (b) what relation exists between the actual per cent defective the process is averaging and the values to be used as limiting values, either for individual lot protection or for average outgoing quality protection.

Assuming that the aim is to hold the consumer's risk to a constant and reasonable figure, say, .10—which means that if a lot having quality at the marginal value* is submitted, it would have only one chance in 10 of passing—the process average per cent defective must be kept to a relatively low figure. This is especially so if the producer's risk is also to be kept at a low figure and at the same time small samples are to be taken. For, as the process average per cent defective approaches the point where it exceeds the limiting value within which the average outgoing quality is to be controlled, or exceeds one-half the value established as the maximum for any individual lot, it becomes impossible to use small sample sizes and still retain a low producer's risk. This means more money must be spent, either in taking larger samples or in fixing up the greater number of lots that will be rejected, if a policy of taking small samples is adhered to under these conditions.

The relationship between the process average per cent defective and over-all inspection effort is important from a cost standpoint, and both warrant care-

* Marginal quality of a lot (lot tolerance per cent defective) is not necessarily the limiting value of usable product but rather is an indication of the quality objective. The chance of accepting a lot having quality poorer than the marginal value is less than the stated consumer's risk.

ful engineering analysis. Consideration of these two factors alone may indicate that the cost of refinements in the manufacturing process to reduce the process average per cent defective may be more than offset by savings in over-all inspection effort.

The successful application of quality-control principles depends upon the reliability of inspection results.

One important factor influencing the reliability of inspection results is the viewpoint of the inspector. Whenever possible, the inspector should be insulated from exposure to any of the day-by-day problems of production schedules and costs. He should also be trained to put himself in the position of the recipient of the product he is inspecting, whether it be the customer or the production group which is going to use the product as a part or sub-assembly in the next operation. If an inspector allows himself to be influenced, ever so slightly, by a desire to contribute to the output or cost bogeys of a production group because he is "one of the gang," he is likely to look less critically at marginal cases; and if, at the end of the week or month, output and cost objectives appear to be in jeopardy, he may also assume that things slightly outside of limits are also marginal and that the shop or production unit should be given the benefit of the doubt. In sampling inspections, where there is an allowable number of defects for a given sample size, these emotions and influences may cause an inspector to regard one over the permissible number of defects as the work of an unkind fate which threw the extra defect into the particular sample he selected. This attitude can readily lead to the conviction that had he taken a different sample he would not have found one over the allowable number of defects

and it should therefore be disregarded.

Another factor which will tend to influence the reliability of inspection results is the use of favorable gauges and measuring devices by inspectors. It is apparent that if the product is averaging close to the limit specified for an individual part, a number of units will pass one gauge and fail on another solely because of the differences in gauges, even though each gauge or measuring device may be within its own permissible tolerance limits. The argument can be advanced, and often is, that if a unit of product meets its specified limits using any appropriate gauge, that is itself within tolerance limits, it is good product. Favorable gauges will of course pass more of this kind of product than will an unfavorable gauge or even one close to the noninal value. However, the fact remains that when a product is running so close to its specification limits that the question of gauge differences arises frequently, the distribution of values is not meeting the design intent, and an analysis of the cause of this shift in average and distribution should be made in an attempt to bring the product back on the beam. The continued use of favorable gauges by inspectors will delay warning of this shift in distribution until it has reached a point where unfavorable reactions from recipients of the product may be expected.

The author's company uses both average-quality and lot-quality protection sampling plans at many stages to control the quality of products bought, manufactured, installed, and repaired. In addition, there is an engineering organization, which is not responsible for costs or schedules, which makes an independent audit of the quality of product after all manufacturing operations, including process and final inspections, have been completed. These

audits provide information with respect to general quality levels, and thus indicate the over-all effectiveness of the production setup. They include engineering surveys of production and inspection methods and results, complaint investigations, and sampling inspections based on quality-control techniques. The results are both qualitative and quantitative and provide management with a picture of quality as the company's customers would judge it. The principal quantitative results are obtained from inspecting, on an hourly, daily, or weekly basis, random samples of several hundreds of general classes of products that are ready for delivery to customers, and comparing the results with predetermined quality standards—from the standpoint of both conformance with stated requirements and general appearance and good workmanship.

Since the necessary protective features have already been incorporated in process-control inspections and final inspections during the manufacturing process, these sampling inspections are primarily for informative purposes and are not designed or intended to serve as a screen. However, the inspection procedures include certain quality criteria which become operative should there be a temporary breakdown in the normal manufacturing protective controls. The continuing results indicate either satisfactory quality control of finished product, or the presence of disturbing elements which are not due to chance causes, and which are therefore subject to identification and elimination. The results also indicate incipient trends which can be corrected promptly.

By A. G. DALTON. *Mechanical Engineering*, March, 1948, p. 205:4.

Reducing the Cost of Small-Unit Deliveries

TODAY'S better traffic analysis and improved bookkeeping methods are increasingly focusing management's attention on the cost leak that has developed in small-unit shipping. Traffic managers are uncovering losses that often exceed by 100 per cent and more the value of the shipment to the sender and that cause articles, in many cases, to be sold at uneconomical and sales-restricting prices.

For every organization faced with this problem, remedial action to eliminate such losses will have to combine: (1) detailed analysis of the unit cost of every type of shipment made by the firm; (2) investigation of the reasons for small-unit shipments; (3) creation

of a policy governing the firm's small-unit business; (4) a system of management and handling that reduces the operational and shipping costs of all small-unit deliveries.

Numerous factors bring about an increase in the number of a company's small-unit shipments. Some of the avoidable ones are: disorganized selling, disorganized ordering by customers, uneconomical production methods in the factory, shipping incomplete orders, careless filling of orders, impractical packaging, imperfect control of shipping operations, faulty delivery systems. Others that are occasionally unavoidable but subject to improvement and amelioration are: nature of prod-

uct, market practices, many small accounts, character of business.

For a remedy, management should set limits to the shipping units for different classes of customers, encourage employment of wholesalers in dealing with small customers, make the production department work in closer contact with the sales office, improve interdepartmental cooperation in general, tighten up general delivery and freight-handling practices of ordering department, warehouse, and shipping-room.

Little can be done, of course, in cases where the product itself is not adaptable to large-unit shipment, or where the service requirements of the article necessitate speedy deliveries in small quantities. The natural remedy in such instances is to establish delivery charges for these articles sufficiently high to compensate the manufacturer for the additional costs of delivering the item, but still within the competitive range. This should be followed by gradual improvement of the conditions surrounding the processing of these items through the delivery stages and, ultimately, the selection of a shipping procedure that will get them to the consumer at lowest possible cost.

After management has (1) reduced the cost of filling an order to its feasible minimum; (2) passed on to the customer as much as possible of the cost of handling the small-unit shipment; (3) made the sales department understand the need of selling in more economical quantities in the interest of making more sales; (4) discouraged small orders from customers by an educational campaign; (5) taken all other appropriate steps, such as designing the most suitable package for low-cost small delivery, etc.—the problem should be turned over to the shipping department and its staff.

Much depends at this stage of the procedure upon the findings of the analysis of delivery conditions. How large a percentage of goods leave the shipping-room in large and small units? What is the customary division line between a large and a small unit in the case of the firm's product? What are the most convenient customer requirements as to size, form of packing, etc.?

The theoretical aim must be to arrange for a steady parallel flow of large and small shipping units through the warehouse and shipping-room at the highest possible speed, and in a manner that permits the most economic handling of the smaller units without lowering the cost efficiency of expediting the large ones. The test of comparative handling efficiency of different sized items, however should not be the cost of each unit up to its arrival upon the loading platform, but rather its end-cost as the article is delivered to the customer.

Depending upon the nature of the shipped merchandise actual tests have shown that it can be as economical to ship a small unit to a certain destination as to ship a large unit and that, where the firm delivers with its own trucks, there is no need for separating the small-unit shipment from the large one as they are processed by the shipping room. On the other hand, many firms that make a large number of small shipments, supplementary to the processing of heavy crates or cases, are finding it more profitable to separate their freight completely, especially where the smaller shipments require different handling in transit, as where all postage packages are packed in a separate shipping-room.

The use of modern materials-handling equipment assures the same economy and speed for small shipments

as for large shipments, by the employment of a multiple-routing system in the warehouse and shipping-room. Large and small shipments are handled jointly over part of the route, but are switched, as required, to different sections of the room, according to their weight, size, or any other pre-determined characteristic. The line may join and divide again, or shipments may be routed to different points of the loading platform, as required.

While this or any similar method probably cannot entirely overcome the original handicap of the proportionally

higher overhead cost that must be carried by the smaller unit, it can in some respects at least, establish equal cost conditions for part of the handling procedure. Moreover, routing in transit, making full use of weight limitations, light and more efficient packaging, can materially improve the ratio of cost to size after the shipment has left the factory, equalizing, to some extent, the cost differences between the small and the large unit.

By WALTER ALWYN-SCHMIDT.
Shipping Management, February, 1948, p. 15:5.

Daily Efficiency Sheet Keeps Workers on Toes

DAILY efficiency ratings for each worker at Willson Products Inc., Reading, Penna., are posted in every department for all to see. Used in conjunction with the company's incentive plan, this idea serves to keep workers on their toes. Competition between individuals acts as a stimulus, and interest in productivity has been increased. So has departmental morale.

Questions that formerly remained in the backs of the workers' minds have been brought into the open by this plan. For instance, workers newly placed on incentive naturally questioned the rates and comparative productivity of individuals with whom they worked. When these questions are raised now, members of management carefully explain the answers.

Daily posting of ratings shows up subnormal operators and allows foremen to concentrate their attention upon them. In addition, it enables workers to estimate their daily and weekly pay to the penny. Each operator knows his own rate, and can interpret his performance percentage into dollars and cents.

—*Factory Management and Maintenance* 3/48

Union Participates in Setting Time Standards

A PLAN for more direct union participation with management in working out the problem of what constitutes a fair day's work was recently adopted at Kaiser-Frazer's Detroit Engine plant. The company and the UAW agreed on a procedure whereby time standard grievances are processed through time-study stewards especially trained for the job. Eighty-four union members applied for the jobs and were given aptitude tests by the Detroit Board of Education.

The nine union members who received the highest grades in these tests were sent to Chicago for two weeks' special training in time study. The three men who finished highest in competitive tests at Chicago were then put on as full-time stewards and given the same pay as company time-study men.

The company continues to establish standards. The union time stewards enter the picture only when there is a dispute. Previously time standard grievances were handled through the normal grievance procedure.

The plan adopted by Kaiser-Frazer is not a new idea. There has been a definite trend within recent years to allow greater union participation in the problem of setting standards.

—*Labor Trends & Policies* (Toledo Research Bureau, Inc.) 4/12/48

MARKETING MANAGEMENT...

There's Gold in Them Thar Kids

FEW manufacturers this side of a psychiatrist would ordinarily pass up a market of 59 million people. This potential market consists of the 29,645,000 boys and 29,838,000 girls under 24 years of age, who comprise over 40 per cent of our population. But because of their youth, many a company is scoffing itself out of very real sales today and—more important—for the next 20 years.

Anyone who has ever come within firing distance of a water pistol knows the amount of money spent on youngsters—and the influence they have on major family purchases. Add the fact that today's 16-year-old often earns as much as his dad did when the latter married, and the small-fry represent a market well worth cultivating for any consumer manufacturer.

For makers of heavy machinery, the youth market is just as big, if not as direct, an influence on sales. Suppliers are dependent on the success of their customer companies. The situation is similar to that of the cement-machine manufacturer who boosted his sales by running an educational program among women for use of cement in building homes. His customers sold more cement; he sold them more machines.

This youth market is by no means unexplored. Enough overtures have been made to convince manufacturers that, angel or brat, the American youngster tugs heavily at family purse strings. For example, Beatrice Food Products Company asked kids to approve names for a new ice cream, and is

using "Polar Puff" and "Creamliner" as a result.

One of the pitfalls, however, in any program to cultivate youths is too little knowledge about them. According to a New York youth research organization, there are three major groups;

1. Children under five have no influence on purchasing power. Their parents, however, support vast industries in their behalf. (One manufacturer of baby products claims the American baby provides a \$300 million market for products annually.)

2. From five to 12 the accent is on school needs, toys, clothing. These kids are not consulted on family buying, but things bought for them increase in size and number. Towards the end of this period comes the cleavage in interests between boys and girls, the former tending to be interested in sports, crafts, etc., the latter in personal appearance, homemaking, entertainment.

3. In their teens, both boys and girls develop their own buying power from allowances and earnings, and begin to shop for and with the family for really big things. Their minds are more open and curious about claims of various brands than they will be later, and buying habits are formed which may last for life. Some firms are capitalizing on this formative stage. General Motors, for instance, is running a series of non-commercial ads on scientific and historical subjects in boys' magazines, of which some 100,000 reprints go to schoolteachers. These hold boys' attention, get across the message that

industry's research is helping to make a big contribution to the American high standard of living.

Teen-age boys drive the family car, are consulted in its selection. They do chores around the house, often buying tools and other equipment. They are also the bellwethers of style—many a masculine fad which started at the corner drugstore has filtered down to more conservative adults.

Manufacturers are also taking advantage of department-store young men's departments for tie-in selling of photographic equipment, sporting goods, books, records, etc.

Granddaddies of the youth program, which prove that the way to an American boy's heart is through competitive sports and crafts, are Chevrolet's "Soap Box Derby" and Fisher Body's "Craftsman's Guild." The Derby, which has grown into a youth's World Series, has been running since 1933. Competing in homemade racers, 11- to 15-year-old winners of 135 newspaper-sponsored contests converge for the national event at Derby Downs, Akron, Ohio. Top winners receive college scholarships as well as other valuable prizes and loot.

Fisher Body's Craftsman's Guild, now in its eighteenth year, for boys from 12 to 19, develops engineering talent by requiring them to create and carve auto models. So far Fisher has sent 72 youths through college.

Today's teen-age girl, unlike her predecessor of a generation ago, is really a serious citizen and homemaker at heart.

According to *Seventeen*, which goes to a million high-school girls, most of its readers cook, help mothers with shopping, are in the market for fountain pens, radios, toilet articles, sports equipment, etc. Sixty-six per cent of

its readers, as reported by the magazine, are opposed to working after marriage.

If *Seventeen's* articles are any indication, the bobby-soxer is no wild-eyed jive addict, though she does buy enormous quantities of records. Editorial coverage ranges from international and atomic affairs to how to look prettier, attract more boy friends.

This accent on self-improvement punctuates most of the ads in the teen-age press. Jive-lingo, talking down, superglamour appeal all arouse a girl's resentment. Furniture, clothing, flour, radio, and other manufacturers find that ads written for the teen-age market, appealing to them as buyers even though parents enter into the decision, really pay off.

As a potent influence on the family, the teen-age girl has no match. *Seventeen* reports in a recent survey that 73 per cent of the girls polled say they influence family choice of new cars. Some 37 per cent of the girls have started buying for their hope chests; and 25 per cent have brand preferences for such things that go into hope chests as towels, linens, silver, china.

However, youthful impressions work two ways. Forty-four per cent of the young people polled in a recent survey, for example, blame high prices on industry. Since 2½ million youngsters graduate into voting age each year, their ideas are, to say the least, important.

With youth-consciousness not nearly so widespread in industry as it might be, a little effort in that direction can do a conspicuous job. Now is the time for the vigilant sales manager to jump in to sow and reap the short- and long-term benefits.

Modern Industry, January 15, 1948, p. 46:4.

Joy in Shopping

SHOPPING a bore and a chore? Big retailers are trying to make it a pleasure.

Sixty-foot-wide terraces built on individual elevators look out from the third, fifth, and seventh floors of a remodeled nine-story women's specialty and ready-to-wear store in Houston. The terraces are lowered to the basement regularly for redressing with greenery and flowers and run back up again. The store—The Fashion—is luxuriously furnished with huge mirrors and antique furniture which formerly reposed in castles in France and Italy.

Like a fairy queen, a shopper can point out what she wants in some cities—and, presto, the articles will be waiting in her auto when she goes outside to reclaim the car in the store parking station. Merchants say this system does more than save wear-and-tear on the shopper. With her arms unburdened by bundles, she buys more, too.

More stores are putting in play areas in which tots can be left while parents shop. Like Detroit's Crowley, Milner & Company, some shops make the areas self-supporting. This store, whose play center is two years old, charges 50 cents for the child for the first two hours and 50 cents for the third hour. And to protect the kids' health, a nurse gives each one a nose, throat, and skin inspection before passing him in.

A. Harris & Company, big Dallas store, is proud of the idea it hit upon last spring. It bought for \$300,000 a three-acre parking lot a half-mile away. Shoppers pay 35 cents for three-hour parking privileges and are shuttled, without charge, by a company bus between the lot and the store. The store delivers their purchases directly to their cars.

In Boston, Neisner Brothers has added a loudspeaker system as part of a thorough remodeling of its store. The loudspeaker usually broadcasts soft music, but it also serves a merchandising purpose: Special sales are announced over it.

—*The Wall Street Journal* 1/14/48

Phooey on Sales Reports

ARE sales reports the only way for the salesman to give the sales manager a check on his work? Isn't there some other channel into which a salesman can funnel his limited writing and dictating time, where it will do more good?

If a salesman is working hard during those few precious hours when he is sitting across the prospect's desk, a lot of paperwork for the home office just doesn't make sense when night falls. Besides, many salesmen eat breakfast, lunch, and dinner with prospects and customers, and that means they sign off only when they retire at night—and then they may be bunking with a customer or prospect so that even their snoring has sales implications.

Too many salesmen, writing sales reports, put too much effort into selling their bosses on the grand job they are doing. Wouldn't it be smart for sales managers to say to their salesmen: "Phooey on sales reports. From now on, your sales reports to me will be carbons of the letters you send to your prospects and customers, your follow-up letters, after calls, or the letters you write before you make the calls."

In this way the salesman's pencil-push would be directed at customers and prospects. Then a sales manager could get more satisfaction out of the fact that all his salesmen's energies go into real selling activities aimed at customers and buyers. Aside from this, the sales manager would have a chance to study intensively the techniques and sales arguments his salesmen use on customers and prospects.

Every sales manager who does much direct-mail promotion likes to have all the names, titles, and addresses on his prospect list accurate and up to date. These could be kept up to date from the salesmen's letters and by special supplementary memos in which this data could be periodically supplied.

—EMIL G. STANLEY in *Printers' Ink* 1/30/48

How to Set Up or Revise Your Sales Compensation Plan

RE-APPRAISING a sales compensation plan now in use or setting up a new one is no task to be undertaken lightly over two Martinis between 5 and 6 o'clock of a spring afternoon. It takes time, thought, and careful checking.

In many industries, price increases and buyers' markets have thrown pre-war scales and compensation plans far out of whack. It's not surprising, then, that many sales managers are doing some intensive soul-searching on the subject.

If you're up against this problem, here's a step-by-step outline that will help you lick it, and a check list of questions designed to point up the decisions you must make before you put your plan into operation:

1. *Decide what you want your compensation plan to accomplish.*
What are your objectives:
Increased volume?
Concentrated selling effort on new products?
Concentrated selling effort on high-gross-profit products?
Bigger orders? More frequent orders?
Fewer complaints? Better handling of complaints?
Reduced traveling expense?
2. *Decide how much you're going to pay:*
How good a sales force do you want?
What is the average annual income required by the caliber of man you want?
How much are comparable salesmen now being paid by competitors?
How much can you afford to pay?
What other inducements can you

offer besides the pay and commission check? Pensions? Prestige? Security? Opportunities of advancement?

3. *Decide how you want to pay it:*
Straight salary; straight commission on sales; salary plus incentive; modified commission (on gross profits, net profits or other base)?
What is the general practice in your industry?
Are you going to follow it as a matter of policy?
What type of plan will fit in best with your principal objectives?
4. *Check up on your plan before you put it into operation:*
Have your salesmen been consulted while the plan was being worked out? Will they favor it?
Does it put a ceiling on their earnings?
Will the plan do what you want?
Will it be simple to operate?
Will the clerical cost be high?
Is the plan flexible—can it be changed in part, if conditions require?
Will it penalize the salesman who is now earning big money?
Does it make sense? Will your salesmen understand it?
Will it provide a level of earnings adequate for the type of salesmen you want to attract?
Will it hold direct sales cost down to a reasonable percentage of sales?
Will it work out equitably in good times and bad?

Over the past few years, the salary-plus-incentive type of plan has been gaining steadily in popularity, so that there probably are as many variants of the salary-plus-incentive plan as there

are companies using it. When this type of plan is used, incentives can be set up to cover virtually any phase of a salesman's activities.

Here's a case story of how one company revised its plan:

The company applying it is a small manufacturer of food specialties, operating chiefly in the Northeast from Maine to Maryland. It produces four products, two of which account for over 90 per cent of total sales. The president and the sales manager listed their objectives, in revising their sales compensation plan, as follows:

1. To increase sales of the company's profitable product.
2. To maintain volume of the firm's volume product (they considered this advisable from the point of view of prestige).
3. To increase the flow of sales through their major accounts. (This company sells direct to chain food stores, and through wholesalers to the independents; 35 accounts provide 87 per cent of its volume.)
4. To hold travel and entertainment expenses down.

There was no consistent pattern in existing salary and commission schedules. In the past, as salesmen had been hired, their salaries and/or commissions had been set up by negotiation. The result was that no two men were paid in the same way. The New England man was on straight commission. The New York City man was on straight salary. The rest of the sales force was on a salary-plus-commission

basis, and no two salaries and no two commission rates were the same.

Industry practice, plus the company's objectives, pointed to a salary-plus-incentive plan. Here's how it worked out:

1. Base salary levels were set at 75 per cent of the salesman's earnings for the past year.
2. A bonus plan was set up which:
 - (a) Paid 10 per cent of gross profit on sales of all products over quota.
 - (b) Paid a bonus of 50 per cent of savings on travel and entertainment expense. Each man was given a budget figure on expenses based on a fixed percentage of the gross profit on his sales volume. The higher the gross profit he produced, the higher was his travel and entertainment allowance.
 - (c) Sales to key accounts were credited at the full bonus rate. Sales to other accounts were credited at half the full bonus rate.
3. Quotas were set on the basis of the past year's volume, and accounts re-assigned and territories adjusted so that no salesman was at a disadvantage.
4. Before the plan was put into effect, a questionnaire was filled out by each man which enabled him to express his reaction to the proposed plan. Then, when the plan was put into effect, each man was called in, and his quota, territory, and expense budget were explained to him in detail.

The results were: vastly better morale; a 22 per cent increase in sales of the high-gross-profit product; a 10 per cent increase in total sales; the lowest percentage direct sales cost in the company's history.

By LOUIS T. MONTANT, JR. *Printers' Ink*, March 12, 1948, p. 29:2.

• A CONTAINER with wings, which can drop products such as foods from an airplane without use of a parachute, is among a number of interesting developments resulting from extensive research constantly under way at the Forest Products Laboratories, Madison, Wis. Named "Aero-Drop," this "flying container" consists of several thicknesses of corrugation and is equipped with corrugated "wings" which flap open when box is dropped. The container, which carries net loads up to 75 pounds, originally was developed for the Army Air Forces. Possible peacetime uses include: dropping of supplies to isolated crews fighting forest fires, dropping of mail or express shipments, and delivery of supplies to places without landing fields.

—*Packaging Parade* 10/47

PACKAGING...

How to Tell If Your Package Will Sell

MANY advertisers go to considerable trouble to test their packages for durability, resistance to moisture, and other physical attributes that a good package should possess. But very few test packages to determine whether they possess the intangibles of salability. It is high time that American manufacturers started spending the small sums necessary to determine consumer reaction to various kinds of advertising on packages.

The closer a test of packages comes to the actual conditions under which the product will go to market, the more accurate it will be. The most accurate test of all is an actual sales test. Though a sales test necessitates the production of the packages to be tested in small quantities, the cost of making up special packages that may never be used is often offset by long-time sales gains—or by prevention of long-time sales losses.

One food manufacturer estimates that he spent between \$3,000 and \$4,000 to make a sales test, whereas consumer jury tests cost his company between \$500 and \$1,000. But where volume over several years warrants the more expensive method of testing, the company uses the sales test.

The companies that test packages are the exceptions rather than the rule. The following case histories show how the enlightened few do it:

Color is important in packaging. In every industry, the old-timers are likely to have preconceptions about the color package that will sell best; but tradition is often a poor (and extravagant) base on which to judge salability.

Rockwood & Company, makers of chocolates and cocoa, used to package their line in chocolate-colored wraps; so did most of the Company's competitors—the idea being that the color symbolized the product. Everybody was happy until one fine day a package designer pointed out to the Rockwood people that their package did not stand out from the other chocolate-colored packages with which it was displayed on candy counters. The Rockwood people were afraid that if another color were used the public would no longer recognize their product as chocolate; but they agreed to try it. The same design was printed in a bright red on white paper, and the new design added to standard packages as a wrap-around. When stacked on the same counters, the red packages far outsold the dull brown ones. The entire Rockwood line has been changed into a bright red dress, and sales are up.

Color is one of the least expensive factors to test. In most cases, the same plates can be used to run off a series of packages in each of several colors. By allotting a color to each of several outlets that do a comparable business and by checking sales over a period of several months, it is usually possible to find one stand-out color that sells best. The cost is only the additional trouble of allocation to outlets by color.

Some companies believe that a color test in their own office or in the office of the advertising agency is sufficient. They get the office force to vote on the color they like best on different dummy packages. This would be of some use if the package were to be sold only in

the office or only to persons in the office. But the package is apt to look different in the different surroundings of a retail store, and the people who buy the package will be a different group in a different mood from those in an office during working hours.

A comparison of results achieved by an office test and a store test on two packages of the same size and shape was made by one manufacturer. Results were completely opposite. One package was a dark red, the other white with red lettering. Office personnel and customers in stores were shown the two packages and asked which one was larger. In the office the two packages were placed side by side on a well-lighted desk. The red package looked larger. In the stores the two were placed side by side on poorly-lighted wall shelves under the normal conditions of sale. In the shadows of the wall shelf, the white package looked larger, the dark red package merged with the shadows and looked smaller.

One of the top cosmetic houses uses a sales test on all new packages, with its demonstrators actually observing reactions at point of sale and sending special reports back to the main office. The sales test is preceded by careful observation of the package within the office by company experts. They check for such factors as brand recognition, ease of opening, etc. The item is then stocked in drug and department stores in three to five test cities, selected for size and type of outlet.

Demonstrators behind the counters are told the sales features of the item, and they have full instructions about reporting on customer reaction. The sales that result are important, but even more important are the reasons why people buy or don't buy the new pack-

age. The demonstrators allow the customers to make their own decisions about buying, and then ask them why they did or did not buy. The aims of the company are twofold: (1) to simulate as closely as possible the actual conditions of ordinary purchasing and, (2) to determine why those conditions exist.

The test periods range from two weeks to a month. At the same time, different advertising approaches are tried, and the most efficient type of advertising support to use nationally is determined. Changes in package are made on the basis of the demonstrators' reports. Then the item is ready for national distribution.

The sales test comes closest to simulating normal conditions of distribution. There are packaging problems, however, that may be best tested elsewhere. When the most important thing about the package is the way it opens, the test should usually be made in the kind of homes where it will be opened.

National Biscuit Company called on its marketing research department for a test of this kind for a cracker package. Four test cities were selected, mainly on the basis of climate. Two package variations were made by surprinting on the original wrap two new methods of opening. The crackers in all three packages (the control and the two new ones) were identical; but two of the packages (one the control) were to be opened on the side, and one on the end.

Consumers were then contacted in their homes by personal interviewers. The consumers were told that the purpose of the survey was to find out which of two kinds of crackers they preferred. Then each person interviewed was given one of the packages with a new

method of opening, and one of the control packages. In 500 interviews the control package was checked against one of the new openings; in 500 additional interviews the control package was checked against the other new opening. One of the test opening methods was voted as giving less protection to the contents than the other two. That method of opening was therefore eliminated from consideration.

There are other methods of testing packages for salability and for factors that influence ease of selling. A test of visibility, for example, can be made by means of a rotating disk on which several packages turn past one location.

People seated at that location record what they see on the packages that are moving past at a uniform speed. There are also possibilities for package testing via television, using the television audience as a consumer jury. Chief advantage would be that only the original dummy packages need be placed before the television camera.

By far the best method of package testing, however, is by sales in sample markets. The manufacturer who predetermines which of several packages sells best under normal conditions will reduce his cost of distribution in the long run.

BY CARROLL J. SWAN, *Printers' Ink*,
March 12, 1948, p. 36:5.

Color Contrast Aids Packaging Production

COLOR painting contrast applied to a packaging department will enable employees to work faster, more accurately, and with greater ease. This desirable accomplishment will be due entirely to the increased light reflectivity of the eight closely coordinated painted surfaces.

Four of these surfaces consist of the plant work areas—ceiling, walls (these include the dado as a third surface), and floor. One such combination used in a number of effective applications has a flat white for the ceiling, flat cream for walls, pearl gray for the dado, and a green-gray gloss for the floor.

The remaining four of the closely coordinated painted surfaces are those on packaging machinery—the body, work space, controls and tops. One recommended combination (there are others, of course) is a battleship gray for machine body, buff machine enamel

both for work space and bench tops, and a vermillion machine enamel for the controls.

On the ceiling, white has a light reflectivity of 90 per cent. Minimum requirement in light reflectivity from a ceiling finish is 80 per cent. Among the whites, paper white has the highest score, and ivory, the lowest. A few degrees off the minimum, 77 per cent, are canary yellow and cream.

Choice of one of the close allies, yellow, cream, buff, or pale pink, is advisable in a packaging department with a low ceiling. Even blue, which has a receding effect, will convey the illusion that the ceiling is higher than it actually is.

On ceilings use a flat or egg-shell paint; a gloss paint converts the reflectivity into an irritating glare.

A white which will stay white is a must for a high ceiling. Choose a white

made of such non-darkening pigments as crytone, albalith, zinc sulphide, and zinc oxide. Such a paint will decrease maintenance and be easier to clean.

Ceiling coloration gains in light reflectivity when the same paint is carried down onto the wall at the point where the picture moulding would be in a home.

Structural supports—posts and pillars—physically belong to the ceiling, and should take the ceiling color. On the other hand, if pillars and posts constitute traffic hazards, they should be painted with alternate yellow and black stripes up to four or five feet from the floor level.

The goal for the walls is a light reflectivity minimum of 50 per cent, provided there are sufficient windows to allow entry of natural daylight; if not, color painting must have at least 65 per cent reflectivity. If the area has a high ceiling, it can be made to appear slightly lower with painted bands. These bands, as they near the upper parts of walls, should be painted lighter than the ones below.

For dados it is sound practice to choose a color not over two shades deeper than the wall above the dado, except in cases where interplant trucks back up to discharge or take on loads against the walls. Truck operators are likely to misjudge the distance, and mar the walls. One manufacturer solved this problem by tarring the walls as high as the highest truckload. The walls above the black were done in light green. The black of the tar and the light hues of the packaged loads contrasted admirably, and the truck operators don't miss their mark as often as they once did.

The above case conforms to the rule that dado height should dovetail with top level of packaging machines, and materials handling vehicles. Advantages: safer, and reduced maintenance.

Remember, light *rises* from a floor painted in a light color, thus increasing the worker's visibility at his level.

Lower parts of packaging machines should be in color partnership with the floor. When the floor is dark, there is no reflection above or sideways. Hence a worker is unable to see properly while attending to the lower parts of the machine. When the floor is painted in a light hue, these underparts of equipment acquire increased visibility. A concrete floor has but 5 per cent light reflectivity. This can be increased to 35 per cent by painting it medium gray.

In introducing a color contrast system into a manufacturing or processing plant, a vital matter is the color or colors of the product. The same is true of the color or colors of the container. There should be adequate color contrast to avoid any possible confusion with the machine's moving parts, the product, and the container, so far as possible.

If the coloring of the product or its container too closely resembles the painted color for highlighting the moving parts of the machine, then the color contrast should be sharp and strong.

Parts of machinery moving at high speed should, from a safety standpoint, be recognizable in a flash. The best flashing combination, of Canadian origin, is alternate white and black stripes applied to the flywheels. The all-important starting switch is in red.

Types of paint chosen vary with the application to be made. One example, for moving parts of machinery, is a paint which will resist oil damage. Some cellulose paints give satisfactory results. Another example is that of resistance to chemical fumes. The high-reflecting paints retain their whiteness longer than do other kinds of paints. Another advantage of such paints is that they have the highest opacity developed by chemists. Often,

too, one coat will do the job of two—and dry faster, with less interference with packaging operations while the color system is being applied.

The choice of gloss paints depends on the kind of reflected light desired. If light rays are to have the widest possible reach, a high gloss finish is advisable, since surfaces reflect light in parallel lines. On the other hand, a high gloss finish is not capable of producing a soft, diffused effect. The latter is attained with a semi-gloss or egg-shell paint.

One large machinery firm, queried

as to the possibility of obtaining pre-colored machinery within the next few years, proved open-minded on the subject. It is marking time until there is more general uniformity and wider use of the color contrast technique in industry. Probably competing firms are taking the same attitude, yet are too wary to go on record. However, this open-minded firm would, if it went ahead, finish the packaging machines in several color contrast combinations at vital parts.

Packaging Systems, February-March, 1948, p. 11:3.

FINANCIAL MANAGEMENT...

Distribution Costs as a Budget Tool

FOR the past several years, industry generally has not been too conscious of distribution losses, and in many instances the end of the rainbow may be several years away. Recent headlines, however, stating:

NEW MODELS BEING ADVANCED
ADVERTISING PROGRAMS TO BE
EXPANDED

BACKLOGS BEING REDUCED

PRODUCTS SO PLENTIFUL MAN-
UFACTURERS ARE CUTTING
PRICES

sound an alert to management, and the warning should not be taken lightly. It would appear that the sleeping giant of competition is awakening.

Consideration of distribution costs seems most appropriate at this time. Of what do such costs consist? For general accounting purposes they are broadly classified as: warehousing, shipping, selling, and administrative expenses. They represent one-half of

the pricing formula of "cost to make and sell."

Like production costs, they are incurred either directly or indirectly.

In some respects, detailed distribution cost techniques and mechanics are identical with those of production costs. A vast difference exists, however, in the recognition given thereto by management. Detailed production costs are considered in determining results from operations, valuing inventories, computing operating and departmental costs, etc., for budgetary control purposes. The same *must* consideration is not given, however, to distribution costs.

What should or can be done about it? Unless you have an established distribution cost procedure, you may consider:

First, selling management on the benefits to be gained from the analysis of distribution costs, just as benefits

have been gained from analysis of production costs;

Second, educating sales and administrative personnel as to the respective costs by function and their responsibility therefor, just as the shop foreman or department heads have been educated to the importance of production costs; and

Third, using some incentive system for reducing distribution costs, comparable with the wage incentive systems employed so successfully in shop operations.

How can these costs be used as a budget tool? Some parts of an actual case study may be helpful in showing how "first steps" were taken in developing certain analyses.

The manufacturing company under consideration had its perennial problems, some manufacturing, some selling and, periodically, some financial. While the company maintained fairly good control of its production costs through a standard cost system, its distribution costs ran wild, like Topsy. They were uncontrolled to the extent that they absorbed in excess of 80 per cent of the gross profit. A review of those costs indicated that too little was known as to how they were incurred. No evaluation was made of results in relation to the costs.

The approach to this problem was patterned somewhat after the procedure in localizing responsibility for production costs. If the *foreman* was held responsible for controllable cost in his department, then the *salesman* should be held responsible for controllable costs in his territory; and so on down the line, for each function.

The Chinese say that on a trip of a thousand miles the *first step must be taken*. This company did just that.

It was felt that the first requirement

was to reduce salesmen's traveling expense, *with the cooperation* of the salesmen. The first statement prepared (which was prepared promptly each month thereafter) was a statement of *Gross Profit and Loss—By Salesmen*, showing gross sales, returns and allowances, net sales, cost of sales, direct and indirect expenses by salesmen, and each salesman's position as to profit and as to sales.

The second statement prepared was *Gross Profit and Loss—By Customers*; then followed *Gross Profit and Loss—By Territories*.

The information shown by the first analysis was electrifying. For instance, a "crack" salesman who continually was first in sales volume was practically always last in total gross profit to the extent that the company was almost exchanging dollars, and accepting the risks as well, on this salesman's business.

The gross profit-and-loss statement by customers was likewise enlightening. It showed some undesirable customers demanding the lion's share of service at a sales price at which the company could not hope to make a profit. That analysis led gradually to a better choice of customers—by class.

The statement of gross profit and loss by territories showed the company was directing part of its sales effort to unprofitable areas. The result was to contract territories, and intensify efforts to increase sales in the profitable areas.

The subsequent budgets developed for distribution costs were classified on a *function* basis, as well as on an *expense account* basis. The cost of each function, by responsibility, became the primary budget tool for action.

The salesmen gradually became "profit-conscious" rather than just

"volume-conscious." Their efforts were rewarded with a bonus, paid quarterly, based on budget savings.

A subsequent analysis of the billing function showed that 38 per cent of the total number of invoices written represented 6 per cent of the dollar amount of sales. As a result of this analysis, price differentials on small orders were increased, encouraging the placing of larger orders.

As a by-product of that analysis, a wage incentive plan was developed for billing machine operators. The backlog of unbilled orders soon was reduced to a minimum.

Mechanical equipment aided in the prompt preparation of the various statements. For instance, sales invoices were priced at standard cost and machine-tabulated daily. As the various classes of selling expenses were recorded, they were classified according to the detailed classification of accounts

established by function, product, etc. Costs were applied directly wherever possible; accordingly indirect or general costs were reduced to a minimum.

The foregoing analysis, while far from complete, established a distribution cost consciousness within the organization which greatly assisted in the enforcement of the budget.

If the budgetary control followed by a company is to be an effective tool of management, one cannot be blind to the necessity for providing adequate statements of distribution costs to the individuals responsible therefor in the same manner as is done for production costs. Why not use cost accounting for all phases of the business where it is adaptable?

BY CLARENCE W. SCHELBE. *L. R. B. & M. Journal* (Lybrand, Ross Brothers & Montgomery), January, 1948, p. 5:5.

Incentive Plan for Executives

A NEW incentive compensation plan for officers and key executives has been approved by stockholders of the Willys-Overland Motors, Inc., Toledo.

Incentive earnings are determined by deducting from the consolidated net earnings the following: preferred stock dividends and sinking fund requirements, \$1 per share of common stock issued and outstanding (not owned by the company), and an amount equivalent to 5 per cent of employed capital. Of the balance, 12 per cent is paid into the incentive compensation fund.

The allocation of benefits to officers and key executives is made by the president, subject to the approval of a committee of three non-participating directors. In case of disagreement, final decision rests with the board of directors. Discretion is given the allocation of funds to resigned or estates of deceased executives for services rendered during a fiscal year.

Participants receiving \$10,000 or less a year will be paid 30 per cent in cash and 70 per cent in common stock. Amounts over \$10,000 will be paid on a 50/50 basis. Directors are authorized to increase the percentage paid in cash. Stock is valued at the average cost to the corporation. There are no vested rights under the plan.

The corporation retains the right to repurchase stock from executives leaving its employ (except in cases of death or disability) at the price when shares were originally delivered under the following limits: 80 per cent of shares delivered within one year of termination, 60 per cent within two years, 40 per cent within three years, and 20 per cent within four years. Employees receiving stock must agree not to sell the above earmarked percentages until the limitation periods have expired.

—Employee Benefit Plan Review, Spring, 1948

Employee Income Tax Status Under a Qualified Pension Plan

THE purpose of this article is to discuss the income tax status of the employee under a qualified pension plan at each of six different times or events, as follows: (1) during employment years, (2) event of termination of employment, (3) event of retirement, (4) event of death before retirement, (5) event of death after retirement, and (6) event of termination of plan.

1. *During Employment Years.*—In general, during his employment years the employee does not report as income any part of the employer contributions made for or allocable to his benefit under the plan. One exception (discussed under Point 6) is a case where the plan is terminated and its benefits distributed during his employment years. A second exception is a case where employer contributions are used in any employment year to provide the employee's beneficiary with "life insurance protection," which means in any year the face amount of a life insurance contract in excess of its reserve at the end of the year. In this second exception, the employee reports each year as income the amount of employer contribution actually used that year in payment of the "term cost" (per the table in PS 58, Revised) of that year's life insurance protection. (Notes: In order to nullify this second exception, many contributory plans using life insurance policies contain a clause that the employee's contribution each year is first used, to the extent available, to pay that year's cost of his life insurance protection. However, in the light of other income and estate tax problems, in certain insured and non-insured contributory plans providing death benefits of any type it may be desirable to include a clause that the

employee's contribution each year is first used, to the extent available, to pay the cost of all his death benefits under the plan, regardless of how and when those death benefits are provided.)

2. *Event of Termination of Employment.*—In general, the employee reports as ordinary income in the year of receipt the value of the termination benefits provided by employer contributions. One exception is that if *all* such termination benefits are paid within one taxable year from a *trusteed* plan, then the employee reports them as a long-term capital gain. A second exception is that if any such termination benefit is an annuity contract with cash value, then the employee does not report any income until the year he withdraws the cash value, and in that year reports only the amount withdrawn. A third exception is that if any such termination benefit is a paid-up annuity (with payments immediate or deferred), then the employee does not report any income until he begins to receive the annuity payments, and in each year of receipt he reports only the amount received, with the 3 per cent annuity rule (discussed under Point 3) applicable if his contributions formed part of the purchase-price or consideration for the annuity. (Notes: Where a *trusteed* plan provides for outright payment of termination benefits, care should be taken to make the entire payment in one taxable year in order for the payment to be reportable only as a long-term capital gain. Also, where the termination benefit is or includes a retirement income policy near its maturity date, it may be advisable for the trustee to convert that policy, before distribution, into an annuity contract in order to defer,

and perhaps eliminate, any income tax on its cash value.)

3. *Event of Retirement.*—In general, the retirement benefit is a pension to the retired employee for his life. If the pension was purchased or provided only by employer contributions, the employee reports as income each year the full amount of the pension payments received in that year. If the pension was purchased or provided by both employer and employee contributions, then the 3 per cent annuity rule applies. That is, the employee reports as income each year only that part of the pension payments received in that year which equals 3 per cent of his said total contributions, and he claims the balance as tax-exempt; but when the aggregate of the amounts claimed as tax-exempt equal his said total contributions, then thereafter he reports as income each year the full amount of the pension payments received in that year. For example:

Assume the employee retires January 1, 1948, on a pension of \$2,120 a year. If he made no contributions, then in 1948 and in each year thereafter he reports as income the entire amount received. If he contributed a total of \$4,000, then in 1948 he reports as income \$120 (3 per cent of \$4,000) and claims \$2,000 as tax exempt (\$2,120 less \$120) and does the same in 1949. On January 1, 1950, his \$4,000 claimed as tax exempt equals his total contributions, so in 1950 and each year thereafter he reports as income the entire \$2,120.

4. *Event of Death Before Retirement.*—In general, where an employee dies during his employment years, any death benefits provided or purchased under the plan by *employer contributions* and payable to the employee's beneficiary, constitute taxable income to the beneficiary; and in each year the beneficiary reports as ordinary income the full amount of such death benefit payable in that year. One exception is that if such death benefits are payable

from a *trusteed* plan as a single sum (rather than as annuity installments), then the beneficiary reports as a long-term capital gain, and not as ordinary income, the single sum payment in excess of the amount of employee contribution (if any). A second exception is that if the deceased employee contributed to these death benefits *and* if they are payable as annuity installments, then the 3 per cent annuity rule applies until the deceased employee's contributions have been recovered as tax-exempt. A third exception is that any such death benefits, whether payable outright or in installments, are entirely exempt from the beneficiary's income tax if and to the extent they are represented by "life insurance protection," which phrase means the excess, if any, of the face amount of a life insurance policy contract over its reserve at the end of the policy year in which the insured employee dies. (*Notes:* Though these employer-purchased death benefits are subject to the beneficiary's income tax as explained above, it must be remembered that they probably will be subject to the deceased employee's federal estate tax. Hence, the value of the employee's general estate, and the relative income tax status of the members of his family, may be important factors to consider in determining both the method of payment and the beneficiary or beneficiaries of these employer-purchased death benefits.)

5. *Event of Death After Retirement.*—In general, where an employee dies after retirement, any pension payments continued to his beneficiary are reportable by the beneficiary as income in the same manner and to the same extent as they would have been reportable by the employee were he living (see Point 3). (*Note:* It is probable that the value of these continued pension payments is subject to the de-

ceased employee's federal estate tax, but litigation is pending on both the right to impose such tax and, if imposed, the method of computing the estate tax value of the continued pension payments under a joint and survivor annuity pension.)

6. *Event of Termination of Plan.*—In general, where a plan is terminated, the employee reports as ordinary income in the year of receipt the market value of the termination benefits purchased or provided by employer contributions. One exception is that if any such termination benefit received by the employee is an annuity contract with cash value, then the employee does not report any income until the year he withdraws the cash value, and in that year reports only the amount withdrawn. A second exception is that if any such termination benefit received by the employee is a paid-up annuity (with payments immediate or deferred), then the employee does not report any income until he begins to receive the annuity payments, and in

each year of receipt he reports only the amount received, with the 3 per cent annuity rule applicable if his contributions formed part of the purchase price or consideration for the annuity. A third exception is that if any such termination benefits are not distributed to the employee but are retained under and continue subject to terms of the plan, then the income tax status of the employee and his beneficiaries with respect to those benefits will be as set forth in Points 2-5 of this article, depending on the occurrence of the respective events covered in those points. (Note: In the light of this third exception it may be desirable for certain plans, especially individual retirement income policy plans, to provide that they continue in existence with respect to purchased benefits even though the employer terminates his obligation to make further contributions under the plan.)

BY DENIS BRANDON MADURO. *Central Hanover Pension Bulletin*, February and March, 1948.

How to Help Your Employees with Their Financial Problems

DETERMINE the need for aid by a study of how your employees finance themselves:

Recognize that they often have several other sources of credit—

- Retailers in open accounts
- Through so-called budget, deferred-income and installment plans
- Personal loan departments of banks
- Morris Plan or industrial bank loans
- Personal finance company loans
- Federal Credit Union Banks
- Pawnbrokers
- Illegal lenders—"loan sharks."

See to what extent they can: (a) secure funds easily and conveniently at a legitimate rate of interest; (b) bor-

row from local sources which do not require collateral that is difficult to procure or endorsements that unreasonably burden their family and friends; (c) avoid dealing with loan sharks charging excessive rates. Then make up your mind whether to advocate a credit union, a cooperative banking plan, or your own savings plan.

Study with a committee of employees the possibility of forming a credit union:

Show the employees that the union is not only a loaning agency but an opportunity for thrift. They furnish their own capital from weekly contributions,

then borrow from it when they are in need.

Point out the particular laws of your state that govern the formation of the union. Get them in touch with the state credit union league to secure all the literature they will need to get organized. Have them ask the league for the uniform system of accounting and other forms and booklets, organization routines, and by-laws that will aid them in getting started.

Before you start, make sure you have enough interested people to secure enthusiastic management. Review the history of similar organizations that have repeatedly operated at a profit with less than 50 members.

Point out, of course, that the credit union is generally regulated by the state banking authorities and that members of the union will be expected to abide by its regulations.

If you are ready to proceed with the organization, do it in this way:

1. Assemble a group of employees and explain the plan in full.
2. File a certificate of organization with the state supervisory authorities and secure a charter—engage counsel.
3. Elect officers and adopt by-laws.
4. Set up an office in the company's headquarters with sufficient office space, desks, and safe facilities afforded by the management.
5. Set up a policy as to election of membership and the savings to be contributed by each member of the union.
6. Set up the process of lending money to fellow employees.

Be sure you understand the difficulties that sometimes arise with credit unions:

1. Loans to members are sometimes made without complete check and losses are large.
2. Employees are afraid to join the credit union when there is a

chance of unemployment or when strikes are imminent.

3. Everything depends upon competent officers—too often they are not available.
4. On occasion, there is an initial subscription of a large number of employees, but the group dwindles quickly. You must continue selling them the idea that they have everything to gain through:
 - Encouragement of thrift.
 - Ability to get loans at a cheaper rate than elsewhere.
 - Avoidance of harassment by oppressive loan agencies.
5. Lack of sympathy on the part of management has contributed to occasional failures.
6. Clerical work piled on a few who get no cooperation from others causes them to withdraw their important support.

Study the possibility of creating savings plans in cooperation with local banks. You might consider: (1) a payroll deduction system to build up an account for the employees at the bank; (2) use of the plan particularly for vacation and Christmas savings; (3) matching bank interest with contributions of your own to encourage thrift—that is sometimes done; (4) giving a thrift bonus.

Some companies have organized their own savings plans. In these, subscribers permit payroll deductions for the accumulation of savings by the company. Generally:

1. The interest is guaranteed through all depression periods.
2. Withdrawals are permitted through passbook arrangements.
3. Savings plans may be tied in with plans for employee stock ownership.
4. Be sure to couple all savings and thrift plans with plans for the buying of government bonds and stamps.

By J. K. LASSER. *Mill & Factory*, April, 1948, p. 118:1.

Earnings Pinnacle

A MERICAN business shattered all its profit records, for peace or war, last year. Same thing happened the year before. And still the men who hold the reins of industry can't shake off anxieties.

This paradox stems from several developments, a *Wall Street Journal* survey of industry's 1947 report card shows. The survey, which covers annual reports that have been pouring in from 332 companies in 22 industries, discloses these firms hauled in profits of \$3.6 billion last year—48 per cent increase over 1946.

Despite this magnificent showing, however, many industrialists are disturbed by the fact profit margins began to slip for more and more companies in the closing months of last year. Executives found bigger and bigger sales gains were needed to hold the profit line.

Uncertainty over the future course of prices, costs, and demand for their products worries industry's hierarchy. This is evident from the way they are rushing to set up shock absorbers in the form of special reserves to cushion the impact of unforeseen developments.

Westinghouse Electric, for instance, has put more than \$8 million into a fund to protect itself against possible inventory losses. Surgical supplies maker Johnson & Johnson set up a \$400,000 reserve for foreign exchange devaluation, the first time it has seen fit to do this.

What to do about mounting break-even points—the level of production where profits begin—keeps many a business man alert. These are now getting so high that even a modest decline in present record-smashing sales could convert present profits into losses. A National Biscuit official warns, for instance, that a drop of only 15 to 20 per cent from present top levels would be a serious thing.

Far out in front in the 1947 earnings sweepstakes, measured by percentage of increase over 1946, was the automobile industry. Aggregate earnings of the 17 companies in this group totaled some \$440 million. That was 223 per cent more than they showed for 1946.

Some other industrial groups which showed whopping profit against last year were electrical equipment, with a rise of 154 per cent; mining and metals, up 123 per cent; sugar companies lifted 117 per cent; pulp and paper, higher by 99 per cent; office equipment, ahead 98 per cent.

Of the 22 industries surveyed, 17 showed increases over the previous year. Four groups—distillers, drugs, movies, and rubber goods—showed smaller profits than in 1946.

Meantime, corporations are sharing their prosperity with stockholders. Cash dividends paid by industry last year totaled \$5,174 million, an increase of 18 per cent over 1946 according to the Department of Commerce.

Quite a few companies, however, find it advisable to pursue a more conservative policy. General Electric was one of these. Despite the largest profits in its 56-year history, its directors felt long-term interests of the company and stockholders would be best served if the dividend rate remained unchanged.

—*The Wall Street Journal* 3/22/48

Activities of Credit Unions

CREDIT UNIONS had a successful year in 1946. For the first time since 1942, the number of new associations overbalanced the number dissolved, resulting in a 1 per cent increase in the total. Membership, which had been declining since 1941, rose in 1946 by slightly more than 6 per cent to a level almost equal to that of 1943. Both state and federal associations shared in this, the former with a 5 per cent increase and the latter with one of 7 per cent.

Business (i.e., loans made), after having fallen by over 100 million dollars from 1941 to 1942 and to a still lower level in 1943, began to rise gradually in 1944. In 1946, loans rose by over 37 per cent, to a total of nearly 290 million dollars.

Share capital and assets have increased continuously, with the single exception of the depression year of 1932, and at the end of 1946 the credit union assets were approaching the half-billion mark. The sum of more than 50 million dollars was accumulated in the year under review. Reserves, though increasing as to amount, fell in relation to total loans outstanding from 19.4 per cent to 14.9 per cent.

Net earnings totaled \$9,915,872, exceeding those of any year since 1942, and dividends on share capital amounted to \$7,021,916.

—*Monthly Labor Review* 11/47

INSURANCE...

English Insurance Supervision and Practices

SOME English insurance practices which might conceivably be adopted for use in this country with benefit both to our citizens and our underwriters have been highlighted in a recent study of English insurance practices made by the New York Insurance Department.* They are:

1. The continuous form of policy for fire and casualty insurance, which eliminates the expense of rewriting policies at expiration.
2. The householders' and house owners' comprehensive forms which include in a single contract protection against practically all insurable hazards to which a tenant or home owner might be exposed.
3. The writing of all lines of fire and casualty insurance by a single company.
4. The establishment by law of the principle of a relationship between premium writings and surplus in the interests of solvency.

The study was undertaken, according to Superintendent of Insurance Robert E. Dineen, to determine whether "the State of New York could get along with less regulation and departmental personnel instead of more," using the limited English supervisory system and its practical results as guides. The report makes plain, he states, that the English system "simply is not adaptable to the factors with which we must cope in the State of New York."

The report contains a detailed analysis of each phase of English fire and casualty insurance, including tariff, non-tariff, and mutual companies, the structure and operating methods of

Lloyd's of London, the production system, and general aspects, together with an outline of the English insurance regulatory law and its administration.

There are no prohibitions against price-fixing combinations, trusts, or unfair discrimination in either general business or insurance law in England, the report points out, and English insurers have gravitated toward agreement on rates, forms, underwriting rules, and procedures in both the fire and casualty fields. While no exact figures are obtainable, it is estimated that 70 per cent of all insurance business other than marine and life in the United Kingdom is transacted by members of the two tariff organizations—the Fire Offices' Committee and the Accident Offices' Association; 5 per cent by non-tariff companies; and 25 per cent by underwriting syndicates at Lloyd's. The law does not establish standards of reasonableness or adequacy for rates, nor is there any form of rate supervision.

In summarizing the effect of English insurance practices on the policyholder, the report gives credit to certain aspects of the English insurance system, adding:

But there is no basis for the assumption that it is superior to our way of doing business. Before that conclusion could be reached, the results would have to be squared with our national aversion to discrimination, to uncontrolled combination, and to non-disclosure of detailed underwriting and operating information in a business affected with a public interest, and to a system which, in practice, discourages new entrants in a field of private enterprise.

The Eastern Underwriter, April 2, 1948, p. 17:1.

**Insurance Supervision and Practices in England*. New York Insurance Department, 61 Broadway, New York. \$1.75.

Contingent Liability Exposures and Coverages

IT is a general rule of the common law that one man is liable for another man's acts if they are in the relationship of master and servant or principal and agent. This general rule appeals to the reason as being just and logical. It would seem equally just and logical that, where the master-servant or principal-agent relationship did not exist, as in the case of a party dealing with an independent contractor, the one would not be responsible at law for the acts of the other. Thus it has been stated as an exception to the general rule that an employer of an independent contractor is not subject to liability for the acts of the contractor or his servants and agents.

But this rule is subject to too many exceptions. One lawyer writing on the subject calls the rule a legal mirage. The truth of the matter is that the employer of an independent contractor is liable for the torts of the contractor in various situations. These types of situations may be roughly enumerated as those in which:

1. The employer is under duties in connection with the task which he actually does not, or legally cannot, delegate to the contractor.
2. The task is inherently dangerous or unlawful.
3. The employer retains or resumes control of the task.
4. The employer fails to prevent or to remedy unlawful acts of the contractor, or actually ratifies such acts.
5. The employer knows or should know that he has selected an incompetent or otherwise unfit contractor.

Following are some recent court cases which illustrate the application of the law to actual situations:

One case involved action by a pedestrian using the public sidewalk adjacent to a building which had been damaged by fire and was in the course of repair by an independent contractor. The

pedestrian was struck by a falling cornice and obtained a verdict and judgment against both owner and contractor. This judgment was affirmed, the court saying "The liability for a nuisance (i.e., the loose cornice) continues until it is abated, notwithstanding that a contractor has been employed to abate it."—*Fiducia v. Magenheimer*, 43 Atl. (2d) 688 (New Jersey, July, 1945).

In another case, action was taken by house owners against an electric company for damages resulting from fire caused by improper installation of an electric range. The actual installation was done by a dealer whom the electric company claimed to be an independent contractor over whose manner of doing the installation they exercised no control. The electric company also showed that the installation contract contained a clause specifying the dealer to be an independent contractor, but there was conflicting evidence as to whether the purchaser signed this part of the contract. A judgment against the electric company for \$7,500 was affirmed on appeal. The court said it was for the jury to decide whether the plaintiff had signed the agreement that the dealer was an independent contractor, and "it is not the fact of actual interference with control (of the job by the dealer making the installation) but the right to interfere that marks the difference between an independent contractor and an agent or servant."—*Russell v. Union Electric Company*, 191 S.W. (2d) 278 (Missouri, December, 1945).

In the automobile field, so-called contingent or non-ownership liability exposures arise from the operation in behalf of the named insured of automobiles owned by others. These exposures and the insurance coverages related to

them may be divided into two categories—occupational and non-occupational. Consideration will be limited here to some of the contingent liability exposures in the occupational field. This type may be illustrated by the case of the Brown Manufacturing Company, which employs 500 people, including 20 traveling salesmen. All the salesmen use their own automobiles in traveling for the company; others in the employ of the company also own automobiles which are rarely, if ever, used in the business. However, such other employees may, with or without the knowledge of the company, use their automobiles to carry out some assignment in behalf of their employer. To push the matter a bit further, the sales manager might in connection with his duties rent an automobile from a U-Drive-It concern not in the name of his employer but in his own name and for his own convenience.

Under the circumstances indicated, the Brown Manufacturing Company is exposed to loss from two sources—one, the known and recognized hazard of automobile operation by salesmen, the other, the unknown or unexpected hazard of automobile operation by those not expected to use their cars in the firm's business. The Brown Company may protect itself against liability for such loss through the purchase of a policy of employer's non-ownership liability insurance. This policy covers the use in the business of the Brown Company of motor vehicles of the private passenger type, and of motor vehicles of the commercial type operated by employees of the insured where such operation is occasional and not frequent, provided such motor vehicles of the private passenger or commercial type are not owned in whole or in part or hired or leased by or registered in the name of the Brown Company.

The premium charged for such insurance is derived by applying a rate to each employee whose usual duties involve the use of motor vehicles and a considerably lower rate to all other employees. Insurance may be written on a specific basis or a blanket basis. A policy written on a specific basis covers the use of non-owned automobiles only by certain designated persons. A policy written on a blanket basis has the definite superiority of covering the use by any person other than the named insured of any non-owned private passenger automobile and the infrequent use of non-owned commercial automobiles by any employee.

Exposures in the field of liability other than automobile arise out of a variety of functions performed for principals by independent contractors. Examples of such functions are: the construction, alteration, and demolition of buildings, freight handling, window-cleaning, renovation of outside surfaces of buildings, and the installation, removal, servicing, and demonstration of the principal's merchandise and products.

Coverage for these exposures is provided by the owner's and contractor's protective liability policy. This policy covers the liability imposed upon the insured by law for damage because of bodily injury, death, and damage to property arising out of (1) operations performed for the insured by independent contractors, (2) omissions or supervisory acts of the insured in connection with such operations, and (3) the completed or abandoned work if the injury results from such things as tools, uninstalled equipment or unused materials left behind by the contractor.

An owner's protective liability policy is not needed in the case of an owner who lets a contract on a cost-plus-percentage or a cost-plus-fixed-fee basis.

Under such circumstances, the owner is considered the principal and the contractor the agent, and the interests of both may be joined without additional premium charge under the contractor's direct public liability policy. Similarly the interest of a contractor who sublets on either of the bases indicated may be joined with the subcontractor in the latter's direct public liability policy.

On occasion, the general contractor who has accepted work on a cost-plus percentage or a cost-plus-fixed-fee basis will sublet certain of the work on a fixed-price basis. If that be done, the owner and the general contractor require protective liability insurance in respect to the work performed by the fixed-price contractor. Coverage for this situation may be effected by joining

the owner and the general contractor under a contractor's protective policy.

It is recommended in conclusion that the insurance buyer examine his company's operations critically to determine possible liability exposures that may be not adequately covered by the firm's present insurance policies. Maybe one or more forms of contingent coverage will be indicated. Or, a blanket or comprehensive liability policy may be the answer. Remember that a third-party liability insurance program is inadequate unless it includes every element of exposure which may give rise to a third-party loss.

From an address by H. P. Stellwagen before a meeting of insurance buyers (*The Insurance Broker-Age*, March, 1948, p. 7:7).

Rights of Labor in Pension Plans

ON April 13 the National Labor Relations Board, after considering for well over a year what position to take, finally announced its ruling that an employer must bargain with his employees on pension or retirement plans if the employees so request. If this decision is upheld in the courts and is not modified at top policy administrative levels or by Congressional action, it will have momentous effects upon all such plans now in existence—numbering several thousand and involving several millions of employees—and upon the character of those to be established in the future. It will affect profoundly life insurance companies, banks, trustees, and all others functioning in the negotiation and operation of pension programs.

This was the first decision of the Board on this subject in its 13 years of history. The case came before the NLRB in August, 1946, at the instance of representatives of two union locals who demanded that their employer bargain with them about the application or modification of an old-age and retirement plan, which had been established by the company in 1936, before these locals had become the statutory bargaining agent.

Two fundamental questions were at issue: (1) Are benefits under retirement plans "wages?" (2) Are the age and terms of retirement in such plans embraced in the words "conditions of employment," as used in the Taft-Hartley and the Wagner Acts, requiring collective bargaining "in respect to pay, wages, hours of employment, or other conditions of employment?" The Board ruled affirmatively on both these questions, directing the company to bargain on these issues and consult the unions on any changes in the plan, on condition that the union comply with the registration and non-Communist oath requirements of the Taft-Hartley law within 30 days.

One further question stands undetermined, though it may not remain so for long—namely, whether a union bargaining agent, on demand, may initiate the establishment of a retirement plan by its employer.

—*The Weekly Underwriter* 4/17/48

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Does Testing Reveal the Accident-Prone?

TO WHAT degree can we depend upon aid in employee selection and training from the professional psychologists? Can they provide us with practical tests and guiding norms which will enable us to determine whether an employee or prospective employee is accident prone?"

These are the questions which safety engineers and safety directors, who of late have been doing more serious thinking about the "human hazards" as elements in loss control than they once did, have been asking of the experts in psychology, who, they now recognize, may play a great part in accident prevention in the future.

Securing answers to these questions is of special concern to safety directors of commercial motor vehicle fleets. It is generally agreed that only about one-tenth of all highway accidents to motor vehicles are chargeable to mechanical faults of the vehicle. So the safety director knows that, as soon as the driver pilots his motor vehicle away from the loading platform, an estimated nine-tenths of the loss risk which his company then must assume is in the form of a gamble on the "human hazards" tied up in the physical fitness and mental stability and action habits of the individual truck driver.

Some of the answers to these questions may be found in discussions by representatives of the psychological or driver research departments of various universities, at the sessions of the National Safety Congress held recently in Chicago.

Said H. M. Johnson, of the Tulane University department of psychology:

In order to treat accident-prone drivers, one must first identify them. And in order to identify them, one must first determine

whether the group of operators we deal with contains many accident-prone individuals or not. Some groups do; some groups do not. There is a way of telling. It is not perfectly simple, but neither is it impracticably hard to apply. But unless one does apply it, then one does not know much about the nature of the problem that he proposes to solve. To apply the procedure, it is necessary that accidents be classified adequately, and that all the classified accidents be recorded and taken into account.

He gave detailed attention to the statistical puzzle which is brought into the problem by the laws of chance, in any attempt to segregate accident-prone drivers merely by pulling out those who have had the most accidents. Chance would indicate that some of those drivers would have had accidents merely because they were victims of bad luck; others would have escaped accidents merely because of good luck. He emphasized also that the statistical approach to "accident-proneness," to be of value, must be detailed enough to relate the accidents that a driver may have to his own tested physical or emotional weaknesses, and to relate them to the particular situation which the accident involves. That is, for an accident statistic to have any practical value in testing the accident-proneness of a particular driver, it must relate to the particular physical or mental qualities of that individual which have made him "accident-prone." Otherwise there would be a tendency, in any re-education plan, to treat exactly alike all members of a group of drivers who had had like accidents. Such a procedure would at least be wasteful, he declared, and might actually be harmful to some of the personnel so treated.

Rather pessimistic was the picture which he painted of his views concerning our present national facilities for

the detection and control of accident-prone drivers:

It looks as though we shall have to make a fresh start in the treatment of operators who are supposed to be accident-prone. First, the operators of large fleets should adopt safety devices and safety rules of operation and apply them to all drivers alike. Second, these employers should use principles of selection which already have been validated for classes of operators (though not for individuals) before they hire their help. Third, we should not expect any miracles from specific treatment of individual drivers from such tests as these or others that we are at all likely to develop. Whenever this country decides to minimize highway accidents, it can do so. But it must accept as a condition such training prior to licensure and such regulation of traffic as would compare in stringency with that which is required in water and aerial navigation.

Such a national program, he said, would involve large expenditures, estimated by one authority at \$17 a year for each licensed driver.

Milton D. Kramer, of New York University's Center for Safety Education, also commented at length on "driver attitude" tests as tools in any psychological program to detect and help accident-prone drivers. He held that a clinic program includes the use of testing devices only as one item. Use should be made of interviews to reveal the past history of the driver, his driving experience, and his attitudes toward his work. There also should be a road skill test. He contended that one of the chief advantages of the psychological tests given a driver is the educational value of alerting him to certain limitations which he and other drivers possess when on the highways.

He gave it as his opinion that driver accident statistics, as assembled today, are very deficient in that as a rule they do not indicate the real causes of accidents. They should indicate why the driver was driving too fast, or why he failed to give the right-of-way. The reported overt act of the accident is not

connected with the individual knowledge of the driver, his attitudes, his emotional stability, his personality, his ability to make proper decisions. There should be increased use of testing devices to check further the relationship of such factors to actual driving.

Amos E. Neyhart, of Pennsylvania State College's Institute of Public Safety, described the clinics used by the Pennsylvania State Police when they find a driver in traffic difficulties or conducting himself on the road in a manner which they think should be checked. The driver is sent to the clinic nearest his home, interviewed, given psychological tests for acuity of vision, peripheral vision, distance judgment and vigilance, and then is given a road test. "It has been observed," he stated, "that thereafter his accident rate goes down. Perhaps the very act of going into the clinic changes his driving attitude."

He also reviewed the experience of a fleet operator on the Pacific Coast, who brought in all his drivers and put them through a battery of tests without explaining to them the purpose of the tests or any of the results. There was a resultant drop in the accidents of these groups, as compared with similar check groups having the same number of accidents which had not been brought in for such tests.

The union reaction to driver clinics is reported as generally favorable. On the Pacific Coast, such clinics are operated by unions, and in the Los Angeles area a union member must go through the clinic established by the union there before he can operate a truck.

It is reported that, in many companies which operate large motor truck fleets, members of labor unions have become strong supporters of company accident review boards. Such boards have become very important in the

maintenance of some of the "psychological factors" that are helping in the education of drivers who have accidents. Armour and Company, for example, has 429 such groups. Such boards have a minimum of four members, one a driver. Their threefold purpose is to determine: (1) whether an accident was preventable or non-preventable; (2) whether it is chargeable against the safety record of the driver concerned; and (3) what the drivers and local company supervisors can do to prevent like accidents. One of the interesting developments in the Armour case has been the gradual building up of a list of 20 different types of accidents which, the records show, are preventable in almost every case by "defensive driving."

The following is a list of such accidents: 1. grade crossing collisions; 2. backing accidents; 3. collisions with vehicle ahead; 4. collisions with vehicle in rear; 5. accidents at intersections; 6. accidents while passing or being passed; 7. weaving right or left; 8. squeeze plays and shutouts; 9. pulling away from the curb or other parking space; 10. entering traffic from a driveway, alley, or side street; 11. accidents when another driver enters the main road from a driveway, alley, or side street; 12. collisions with street cars; 13. collisions with vehicles from opposite directions; 14. pedestrian accidents; 15. collisions with fixed objects; 16. skidding accidents in which own vehicle skids; 17. accidents due to poor visibility; 18. accident due to faulty brakes; 19. mechanical failure; 20. yard or dock accidents.

One Chicago fleet operator of many for-hire trucks has developed the democratic procedure of having only five members on its board—two are union drivers chosen by their fellow drivers; two are company supervising officials; the fifth member is the company safety

director, assumed always to be neutral, who has the deciding vote only when the other members become involved in a tie. During the several years that the plan has been in operation, it never has been necessary for this fifth member to vote, and the votes of the other four members always have resulted in a unanimous verdict.

This same company has developed an eight-point rating system for its drivers, which seems to accomplish a great deal in a practical way toward the recognition and control of accident-prone drivers. The company uses the standard psycho-physical tests at the time of the original selection of its drivers. These include tests of vision and reaction time as well as driving tests. The company does not use any direct "intelligence" or "attitude" tests; it is assumed that such results as these could achieve will be brought out indirectly in the other tests, and during the close supervision of drivers involved in the rating program.

The drivers are rated continuously on the following points: traffic accident control; control of damage to equipment; attention to mileage gasoline consumption; mileage life of clutch; tire protection (cut and blown tires); street and highway speeding; tonnage per load (routing and loading practices); and so-called OS&D errors (practices in proper recording and delivery of goods transported).

All in all, there seems little doubt that safety engineers and safety supervisors today are greatly interested in what the professional psychologists ultimately may be able to accomplish in the way of providing norms which will aid in spotting the accident-prone employee before he has accidents rather than after he has them.

BY RANDALL R. HOWARD. *Journal of American Insurance*, February, 1948, p. 6:4.

Survey of Books for Executives

PERSONNEL AND INDUSTRIAL PSYCHOLOGY.
By Edwin E. Ghiselli and Clarence W. Brown. McGraw-Hill Book Company, Inc., New York, 1948. 475 pages. \$4.50.

Reviewed by Charles A. Drake

This is a textbook. It makes little concession to the general reader who may be unfamiliar with conventional psychological concepts and with statistics through partial and multiple correlation. Since it was prepared for advanced classes in academic psychology and was tried out over a period of years in mimeographed form, its emphasis is heavily upon the path-finding and often grouping investigations of the early days of systematic research. The comparative neglect of the period since 1940 may imply to some readers that little of significance has been accomplished in recent years. This is not a fact, and it is undoubtedly not the intention of the authors to convey such an impression. The instructor using this text will certainly cover the recent and contemporary period in the lectures for which this text affords supplementary material.

It is disappointing to find that the few references made to certain research cite only the less important results. For example: "Among industrial workers, Tiffin (sic) has compared the accident rate of workers who failed various visual tests with that of workers who passed such tests." The extensive contributions of Tiffin in the field of visual acuity and visual perception deserve a better perspective. This text is, on the other hand, very successful in presenting most of the conventional problems in its field. In this presentation, the effort is directed toward teaching the student to recognize these problems, to define them, and to familiarize himself with some of the attempts at their solution. The emphasis is therefore definitive and historical without entering that field of "how-to" which is anathema to the academic mind and the bane of the liberal arts college.

The authors might have broadened the scope of their work by including some discussion of the place of systematic psychology in job evaluation and wage standardization and in work simplification. These topics of contemporary importance are at least as worthy of treatment by psychologists as are

the highly physiological matters of fatigue and of accident-proneness. However, the authors have introduced an excellent and much needed chapter on "Effective Methods of Work and Design of Equipment," and among the 16 chapters—which adapt the book conveniently to the one-semester course in this field of applied psychology—they also include a long chapter on "Accidents and the Safety Program."

For the instructor who is properly oriented in this field, who keeps in touch with recent developments, and who is not inhibited from incisive criticisms of experimental results either in the laboratory or in the office and shop, this is an adequate and useful text.

LABOR-MANAGEMENT COOPERATION. By E. J. Lever and Francis Goodell. Harper & Brothers, New York, 1948. 143 pages. \$2.50.

*Reviewed by D. M. Mason**

This is an interesting restatement of the importance of non-financial incentives in industry's human relations. It is also a tenuous and unconvincing plea for greater union participation in the management functions. Written by a labor educational institute director and a management consultant with much experience in government service, this brief book restates clearly and in practical shop terms two premises—one of which is beyond dispute and the second of which should be:

1. Increasing productivity is our only national cornucopia, and, beyond the contribution of accumulated capital and technical skill, cannot be achieved without the informed cooperation or teamwork of labor.
2. This teamwork cannot be accomplished by financial incentives alone, but requires means through which the industrial worker can experience enough of industry's planning problems and activities to feel some self-interest in and responsibility for achievement of those plans.

However, from these premises (for which there is considerable experimental evidence

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elsewhere), the book draws two conclusions: (1) The present supervisory organization of industry cannot possibly overcome existing obstacles to adequate communication with subordinates and achieve this informed teamwork. (2) Consequently, a new organization—the joint production council, for which the book is an exhortation—must be established to carry on communication, investigation, and planning functions. This additional “line” organization is composed of top management representatives and union appointees from the several levels of the organization.

The book may be labeled “unconvincing” because these conclusions do not appear to follow either necessarily or advisedly from the premises. At least, neither a convincing logic nor comprehensive experimental data is offered by the authors to link premises and conclusions.

In speaking of incentive systems, the authors remark: “But the gravest fault of piecemeal work is that it prevents management from grappling with its real problem . . . that it must bring its employees into a more wholesome relationship—through participation” (page 76). Many readers will find themselves far from convinced that the antidote advocated for the ills of industry’s human relations, a joint production council, does not similarly prevent management from grappling with its “real problem,” how to combine the efficiency of a single line organization for planning and control with the urgent, absolute necessity for wide-open, three-way communication—up, down, and across—and consultative-type supervision throughout all levels of that organization.

ADVERTISING. By Albert Wesley Frey. Ronald Press Company, New York, 1947. 759 pages. \$5.00.

Reviewed by Edgar L. Schnadig*

To the two groups to whom Professor Frey primarily addresses this book—college students in advertising and general business—it should prove interesting. In addition, the reader preparing to pursue an active career in advertising, and the one contemplating an executive position in another field, might well read the book as background against which to set specific experiences and as a comparison for other specialized readings, which are extensively listed at the end of each chapter.

Advertising is an adequate historical and statistical reference. In an academic way, it provides an encyclopedic view of advertising processes, methods, and thinking. The skillful research of the marketing profession is evi-

dent in its compilation, though to the technically initiated there is some indication of unfamiliarity.

The work is well organized, carrying the reader from subject to subject in an easy, carefully coordinated style. The familiar reader will recognize its thoroughness and find satisfaction in the manner in which the functioning of advertising agencies is discussed. The coverage is complete from merchandise and merchandising, through market research and media selection, testing and determination of results, to the discussion of consumer movements and labeling. One might wish, however, for a discussion of labeling as related to magazine product recognition, such as that carried on by *Good Housekeeping* and *Parents Magazine*. Inadequate reference is made to that new miracle of magazine recognition—“As advertised in *Life*” (and *Good Housekeeping*). The fact that the author indicates the book is not concerned with consumer advertising cannot gratify the reviewer’s concern, in view of the title. One cannot deal principally with manufacturers’ national advertising and ignore retail or consumers’ advertising *per se*, not even if consumers’ advertising refers to newspaper advertising.

The book features an interesting discussion of the relation of advertising to fashion and business cycles. The subject of business cycles deserves selective study. It is a phase of our “way of life” which is being given special attention by some of our best academic and commercial economists. The White House is making the public increasingly conscious of cyclical trends. This awareness is evident in every walk of life. Many believe the ultimate success of our free enterprise system is dependent upon a broader understanding of the price structure and the avoidance of excessive swings in the cycle. The author seems to find some solution in adjusting advertising expenditures to the cycle to effect partial leveling. This question is extremely provocative. Youthful readers will not acquire sufficient background from this book; if their curiosity is whetted, however, further study of the business cycle may be extremely rewarding.

Some consideration might well be given in future editions of this work to the effect of the Miller-Tydings and Robinson-Patman Acts on the distribution of merchandise as they relate to pricing and consumer acceptance, and to the progeny of these Acts, the State Fair Trade Acts, which, together with the practice of “exclusivity” in distributorship, are believed by some thinking people to create unfair trade advantages and “sticky” economics. On the other hand, some believe these new practices tend to level the cycle.

The readers for whom Professor Frey intended this text will find it adequate in

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breadth, thorough in reference, and academically comprehensive. The wayfarer along the path of advertising travail might have enjoyed a discussion of the "Battles between the Jar and the Tube," along with discussion of copy appeal and layout technique. He might also have welcomed a discussion of the effect of the radio program "Take It or Leave It" upon something that was being left. Even the student would have enjoyed a comment on "that film" that Irium comes lately to remove, and its efficacy in the promotion of Pepsodent.

Professor Frey did not intend his book to be a "Trumpeter" or a "Huckster." It is a book of fact—of fact behind the fact that advertising is not a scientific profession. Many an idea proteinized by beefsteak and ale to season the subconscious has produced more sales than all the known, fixed facts of the industry. The advertising fraternity will miss the acknowledgment that advertising is fun because it is also an art.

This book has a proper place in both the library and the school. It won't hurt anyone who spends advertising time to leaf through it—and to find how surprisingly often he will be refreshed. *Advertising* deserves wider readership than the author has visualized.

OFFICE MANAGEMENT. Edited by Coleman L. Maze. The Ronald Press Co., New York, 1948. 870 pages. \$6.00 (\$3.50 to NOMA members).

*Reviewed by John J. Corson**

Coleman Maze and his associates have produced a veritable warehouse of information for the office manager who is not satisfied that the old ways are the best ways. Whether it be the people, the desks, the forms, or the costs that plague Mr. Office Manager, he will

* *The Washington Post*, Washington, D. C.

find here ideas or discussion to stir his mind.

"Office management," this book suggests, "includes five elements—organization, human, physical, operation, and control." A separate part of the text is devoted to each. Two of the "elements," however, claim a major portion of the whole—the "human" and the "operation" elements.

"Part II—The Human Element" was of greatest interest to this reviewer—but this may be indicative of his own leanings rather than the excellence of the section. Yet here there is a comprehensive description of the personnel function in modern management, which will be of value to many whose task it is to hire and fire—and, more important, to utilize—other human beings to their maximum capacity and full satisfaction. It takes the reader from the personnel application blank to old-age retirement (through 241 pages), while providing a humanized rather than mechanized picture of the personnel process.

The section dealing with the "operation element" impressed the reviewer least. Here the authors deal overly much with definition and detail. For one who will wade through these 200 pages, there are doubtless valuable ideas on everything from the definition of "performance standards" to the use of mailing machines and work simplification programs. But these chapters drag and seem, on the whole, least fruitful.

All in all, the volume constitutes a thoroughly useful reference work. It includes among its contributors a galaxy of specialists. Nowhere, however, is any individual's contribution identified, and the reader is left to speculate that the sections he particularly enjoys are the product of men he has come to respect. To offset this limitation, the scope and uniform quality of the volume, which testify to the high caliber of Editor Maze's work, make of the whole a helpful, practical handbook.

THE FUNCTIONAL OPERATING REPORT: *The New Form of Social Accounting for Use in Public and Employee Relations*. By Robert R. Doane and Joseph E. Canning. The American Economic Foundation, 295 Madison Avenue, New York 17, N. Y., 1947. 22 pages. \$1.00. Simplified techniques of social accounting, especially designed for use in public and employee relations, are discussed in this brief manual. "Functional operating reports" are intended to make the arithmetic of business intelligible to the untrained-in-accounting layman, not to modify methods or terminology of professional accounting; they may be considered laymen's editions of the professional's profit-and-loss statement. The manual answers three questions about this type of report: Why should it be adopted? How should it be presented? How is it constructed? A representative list of companies that have adopted this new form of accounting includes General Mills, The Marine Midland Trust Company of New York, Vanadium Alloy Steel Co., New York Air Brake Co., Allied Chemical & Dye Corp., and the New York Central Railroad System.

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